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Examining Influences on Undergraduate Athletic Training Students Career Decisions Post Graduation

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Examining Influences on Undergraduate Athletic Training Students Career Decisions Post Graduation

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Examining Influences on Undergraduate Athletic Training Students Career Decisions Post Graduation

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Context: Career opportunities for athletic training students (ATSs) have significantly increased over the past few years. However, it commonly appears that ATSs are opting for a more diversified professional experience after graduation. With the diversity in available options, an understanding of career decision is imperative. **Objective:** The purpose of our study was to investigate, using the theoretical framework of socialization, the influential factors behind the post graduation decisions of the senior ATS. **Design:** Qualitative design using internet-based, structured interviews and follow-up semi-structured phone interviews. **Setting:** Web-based management system. **Patients or Other Participants:** 22 ATSs (16 females; 6 males), who graduated in May 2010 from 13 different Commission on Accreditation of Athletic Training Education (CAATE) programs. **Data Collection and Analysis:** All interviews were transcribed verbatim, and the data was analyzed inductively. Data analysis required independent coding by 2 athletic trainers for specific themes. Credibility of the results was confirmed via peer review, methodological and multiple analyst triangulation. **Results:** Two higher order themes emerged from the data analysis: *Persistence in Athletic Training (AT) and Decision* to *Leave AT*. Faculty and clinical instructor support, improved marketability, and professional growth were supporting themes describing *persistence in AT*. Shift of interest away from AT, lack of respect for the AT profession, compensation, time commitment, and AT as a stepping stone were themes sustaining an ATS's *reason to leave AT*. The aforementioned reasons to leave were often discussed collectively,

generating a collective undesirable outlook of AT profession. **Conclusions:** The results of this study corroborate previous literature and highlight the importance of faculty support, professional growth, and early socialization into athletic training. Socialization of pre-athletic training students could alter retention rates by providing in-depth information about the profession before students commit in their undergraduate education, as well as helping reduce attrition prior to entrance into the workforce. **Word Count:** 300

REVIEW OF THE LITERATURE

The opportunities for athletic trainers have grown significantly over the past decade.[1-3] The National Athletic Trainers' Association (NATA) estimates over 5,000 student members, yet only 600 members are certified graduate students.[1] The dichotomy in these statistics raises the question as to where these students are going after they complete their degree programs. Currently, there is an abundance of data regarding retention and attrition in higher education[2,4-10] and socialization of athletic training students (ATS) and professionals.[11-15] This missing link lies within the transition from student to professional. A better understanding of the decision making process from recent graduate to the first year professional may help increase the number of students who choose to remain within the profession of athletic training. This review of the literature will be divided into four parts. The first part will discuss the history of athletic training education, including both undergraduate and post-professional programs. The second part will explain the socialization processes of students and working health care professionals. The third section will address factors that can influence retention and attrition in athletic training and other health care professions and will include a discussion of burnout, work family conflict, and job satisfaction. The final section will explain how a qualitative approach could assist examining athletic training students' career decisions after graduation.

History of Athletic Training Education

Athletic Training Undergraduate Education Prior to Accreditation

Athletic training as a profession is in its infancy, but the foundations of practice have been documented throughout history. The earliest reports date back to the 19th

century, although there were reports of men training and massaging athletes and soldiers.[16] In the late 1800s, Harvard and Yale hired the first individuals to serve in the capacity of athletic trainers[16], who's main responsibility was the treatment of injuries, but it was not until the 1950s that athletic training began to significantly evolve and define itself.[16,17] The National Athletic Trainers' Association (NATA) was founded in June 1950[16-18], and its purpose was to evolve and strengthen the profession of athletic training through the exchange of ideas, wisdom, and methods of athletic training.[17] William E. Newell was the driving force in this movement, establishing the Committee on Gaining Recognition in 1955. The main charge was to develop an educational model to help prepare future athletic trainers.[16,17] The process took almost four years and in 1959, the first athletic training curriculum model (Table 1) was approved by the NATA Board of Directors. Although the model was designed for athletic training professionals, the model predominately focused on prerequisite courses for admission into physical therapy programs and teaching credentials.[16,17]

Table 1.1959 Athletic Training Curriculum Model[17]

Physical Therapy prerequisites (minimum 24 semester hours)
Biology/zoology (8 semester hours)
Physics and/or chemistry (6 semester hours)
Social sciences (10 semester hours)
Electives (e.g hygiene, speech)
Specific Course Requirements
Anatomy
Physiology
Physiology of exercise
Applied anatomy and kinesiology
Laboratory physical science (6 hours chemistry/physics)
Psychology (6 hours)
Coaching techniques (9 hours)
First aid and safety
Nutrition and foods
Remedial exercise
Organization and administration of health and physical education
Personal and community hygiene
Techniques of athletic training
Advanced techniques of athletic training
Laboratory practices (6 hours)
Recommended Courses
General physics
Pharmacology
Histology
Pathology

*Copied from Table 2 1959 Athletic Training Curriculum Model. Delforge DG, Behnke RS. The History and Evolution of Athletic Training Education in the United States. J Ath Train. 1999;34(1):53-61.

Despite the development of this standardized curriculum model, undergraduate athletic training education programs were not officially recognized by the NATA until 1969.[16,17] To create a distinction between the professions of athletic training and physical therapy, a revised athletic training curriculum model was created during the 1970's which eliminated physical therapy prerequisites and physical education courses.[16,17] During this time, the NATA Professional Education Committee (a sub-committee developed from the Committee on Gaining Recognition), chaired by Sayers "Bud" Miller, formalized

standards and guidelines for approval of undergraduate athletic training education programs.[16,17,19] In June 1983, the Professional Education Committee published the first *Guidelines for Development and Implementation of NATA Approved Undergraduate Athletic Training Education Programs*.[16-19] The 1980s, proved to be the time when the athletic training education curriculum developed into what exists today (Table 2). This included a clinical hour requirement and a skill-competency checklist to guide and supervise the development of the students' clinical skills.[18] The NATA required all approved undergraduate athletic training education programs to offer athletic training as a major field by July 1990.[16,17] At this stage, athletic trainers assumed the role of injury treatment and management, and their main working positions included professional, collegiate, and rarely high school sports.[16,17]

Table 2. 1983 Athletic Training Curriculum Subject Matter Requirements[17,18]

Prevention of athletic injuries/illness
Evaluation of athletic injuries/illness
First aid and emergency care
Therapeutic modalities
Therapeutic exercise
Administration of athletic training programs
Human anatomy
Human physiology
Exercise physiology
Kinesiology/biomechanics
Nutrition
Psychology
Personal/community health
Instructional methods
Laboratory or practical experience in athletic training to include a minimum of 600 total clock-hours of clinical experience under the direct supervision of an NATA-certified athletic trainer

*Adopted from Table 4. 1983 Athletic Training Curriculum Subject Matter Requirements. Delforge DG, Behnke RS. The History and Evolution of Athletic Training Education in the United States. J Ath Train. 1999;34(1):53-61. and Table 1. Athletic Training Curriculum Course and Clinical Cock-Hour Requirements in the Mid-1970s.

Weidner TG, Henning JM. Historical Perspective of Athletic Training Clinical Education. J Ath Train. 2002: 37(4 Suppl): S-222-S-228

Over the past 50 years, the athletic training profession, particularly the educational preparation for the athletic trainer has made significant progress. As shown within Table 3, athletic training education is the continuously evolving central point of the relatively new profession. Undergraduate athletic training education will need to keep advancing in the future in order for the profession to move towards an evidence-based medicine centered practice and distinctively established itself among allied health care professionals.

Table 3. **Key Changes within Athletic Training Education**[17]

1959:	First athletic training curriculum model approved by NATA First undergraduate athletic training curriculums approved by NATA
1970:	First national certification examination administered by NATA Certification Committee
1972:	First graduate athletic training curriculum approved by the NATA
1980:	NATA resolution requiring athletic training curriculum major, or equivalent, approved by NATA Board of Directors NATA Guidelines for Development and Implementation of NATA approved Undergraduate Athletic Training Education Programs published
1982:	NATA Educational Competencies (1st Edition) published
1990:	Athletic training recognized as an allied health profession by American Medical Association
1991:	*Essentials and Guidelines for an Accredited Educational Program for the Athletic Trainer* approved by the AMA Council on Medical Education
1992:	NATA Educational Competencies (2nd Edition) published
1994:	First entry-level athletic training educational programs accredited by AMA Committee on Allied Health Education and Accreditation (CAHEA)
1996:	NATA Education Task Force recommendations approved by NATA Board of Directors
1999:	1st Athletic Training Educators Conference NATA Educational Competencies (3rd Edition) published
2000:	NATA Education Council developed the first Clinical Instructor Educator (CIE) seminars
2001:	2nd Athletic Training Educators Conference CAAHEP formally recognized ACIs into the revised standards and guidelines
2003:	3rd Athletic Training Educators Conference
2004:	NATA mandates that a students taking the exam must have through or be in the process of completing a degree from an accredited institution
2005:	4th Athletic Training Educators Conference
2006:	NATA Educational Competencies (4th Edition) published
2007:	5th Athletic Training Educators Conference
2009:	6th Athletic Training Educators Conference

*Adapted from Table 1 Major Events in the Evolution of Athletic Training Education. Delforge DG, Behnke RS. The History and Evolution of Athletic Training Education in the United States. J Ath Train. 1999;34(1):53-61. (1955-1996) with additions made to accommodate current events (1998-current) and other pertinent events

Recognition and Accreditation

The athletic training profession reached a milestone, after over 40 years of practice, in 1990. On June 22, 1990, the American Medical Association (AMA) formally

recognized athletic training as an allied health profession.[16-18] With athletic training as an allied health profession, steps needed to be taken to assure accreditation of athletic training education. The NATA Board of Directors sought this accreditation of the entry-level athletic training programs by the AMA Committee on Allied Health Education and Accreditation (CAHEA).[16-18] Shortly after, the NATA and AMA, along with the American Academy of Family Physicians, American Academy of Pediatrics, and American Orthopedic Society for Sports Medicine joined together to from the Joint Review Committee on Educational Programs in Athletic Training (JRC-AT).[16-19] By having the support from major medical organizations, the JRC-AT gained more professional recognition and had a specific purpose of reviewing only athletic training education programs and make recommendations to CAHEA.[18] The JRC-AT first responsibly was to develop guidelines and standards for JRC-AT review and accreditation, and these guidelines (*Essentials and Guidelines for an Accredited Educational Program for the Athletic Trainer)* were approved in December 1991.[17,18] In July 1994, CAHEA was disbanded, and in its replacement was the Commission on Accreditation of Allied Health Education Programs (CAAHEP).[17,18] The popularity and need for athletic training education became evident when 82 programs had been accredited by CAAHEP in only 4 years.[17]

Table 4. **Key Changes in Athletic Training Governing Bodies and Committees**[17]

1950:	NATA and NATA Board of Directors formed; official first meeting in Kansas City, Missouri
1955:	NATA Committee on Gaining Recognition appointed
1969:	NATA Professional Education Committee (PEC) and NATA Certification Committee developed (former subcommittees of Committee on Gaining Recognition)
1990:	Committee on Allied Health Education and Accreditation (CAHEA) formed
	Joint Review Committee on Educational Programs in Athletic Training (JRC-AT) formed
1994:	Commission on Accreditation of Allied Health Education Programs (CAAHEP) formed (replacing CAHEA as entry-level athletic training education program accreditation agency)
	NATA Education Task Force appointed
1996:	NATA Education Council formed
1998:	NATA Professional Education Committee disbanded
2006:	Commission on Accreditation of Athletic Training Education (CAATE) formed (when JRC-AT become independent from CAAHEP)

*Adapted from Table 1 Major Events in the Evolution of Athletic Training Education. Delforge DG, Behnke RS. The History and Evolution of Athletic Training Education in the United States. J Ath Train. 1999;34(1):53-61. (1955-1996) with additions made to accommodate current events (1998-current) and other pertinent events

Athletic training education was still continuing to grow entering the new millennium, as seen in Table 4. In June 2000, the NATA Education Council developed the first Clinical Instructor Educator (CIE) seminars.[18] The CIEs train Approved Clinical Instructors (ACI) to efficiently teach and evaluate athletic training students' clinical proficiencies. In 2001, CAAHEP formally recognized ACIs into the revised standards and guidelines.[18] With this addition, it ensures athletic training students are receiving the superlative education in both the classroom and clinic. The JRC-AT became independent from CAAHEP in June 2006, and it became a sole organization for accrediting athletic training education programs. The Commission on Accreditation of Athletic Training Education (CAATE) was established[20] and like CAAHEP, CAATE is sponsored by many different medical associations. These organizations collaboratively developed the

Standards for Entry-Level Athletic Training Education and NATA Educational Competencies and Clinical Proficiencies.[20] The first NATA Educational Competencies were published in 1982, along with the development of the athletic training curriculum[17], and these competencies are constantly revised with the evolution of athletic training education. By having an individual accreditation agency for athletic training education only, a standardized educational content required by an entry-level athletic trainer can be accomplished.[20]

Board of Certification (BOC)

The certification process was first established in 1968, when the NATA's Professional Advancement Committee proposed that a certification exam be developed for athletic trainers (Figure 1).[16] Also during this time, the NATA board allowed those qualified by experience to apply for active membership leading to certification by a grandfather clause.[16] By 1970, the Certification Exam Committee created the first examination, eliminating the grandfather clause for certification.[16-18] The purpose of the exam was to make sure the entry-level athletic trainer is competent and proficient with the knowledge and skills necessary for an athletic trainer.

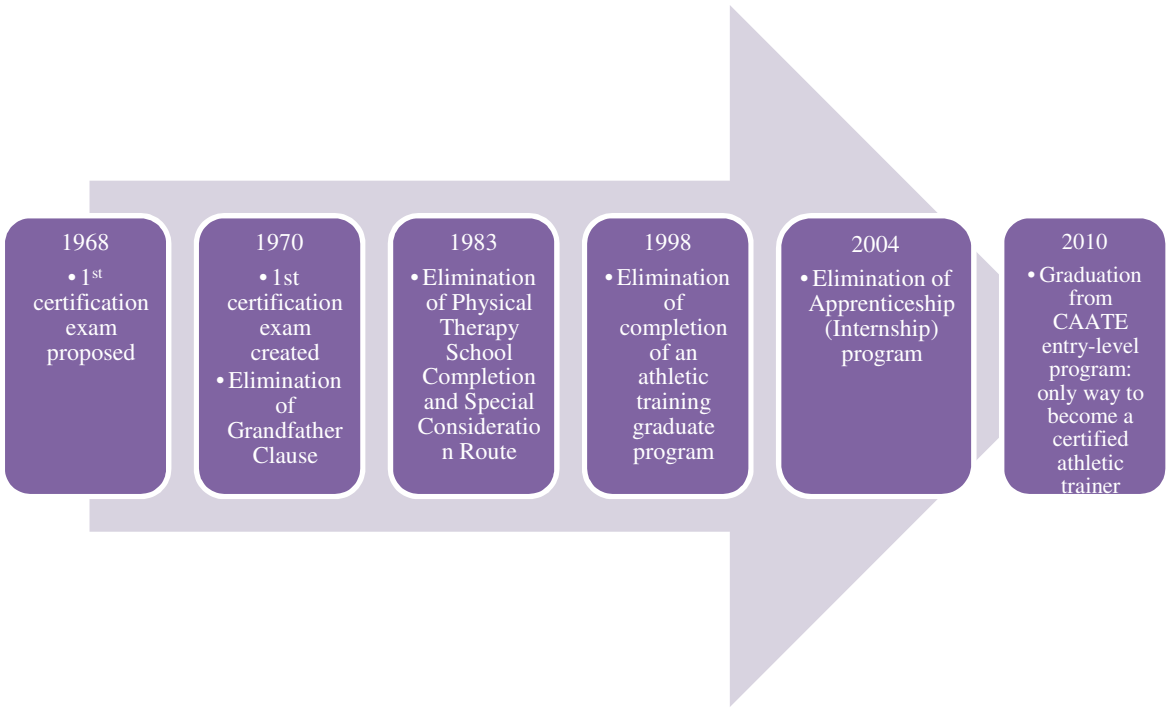

Figure 1: Timeline of Certification Process[16-18,20]

Originally, there were four paths to becoming a certified athletic trainer (Figure 2). They included graduation from an NATA-approved athletic training education (undergraduate or graduate) program, completion of an apprenticeship (internship) program, graduation from school with physical therapy degree with a minimum of 2 years athletic training experience, and special consideration route (minim 5 years as an "actively engaged" athletic trainer).[16,17] With the curricular advancement of athletic training education moving away from physical therapy courses, completion of physical therapy programs and the special consideration route to certification were discontinued in the early 1980s.[17] The BOC was incorporated in 1989, replacing the Certification Exam Committee, to provide a certification program for entry-level athletic trainers and recertification standards for certified athletic trainers.[21] Additionally, the BOC has established the continuing education requirements that a Certified Athletic Trainer must

satisfy in order to maintain current status as a BOC Certified Athletic Trainer.[21] The certification eligibility was further specialized in 1998 when the completion of an athletic training graduate program was no longer a route.[16,17] This left only two routes for certification, graduation from a CAAHEP accredited program or completion of an internship.[18] Affective in 2004, the internship route was also eliminated, and graduation from an approved CAAHEP then CAATE entry-level athletic training education program was the only means to sit for the BOC exam.[16,17,22] This change brought athletic training in line with the credentialing process of other allied health care professions.[18]

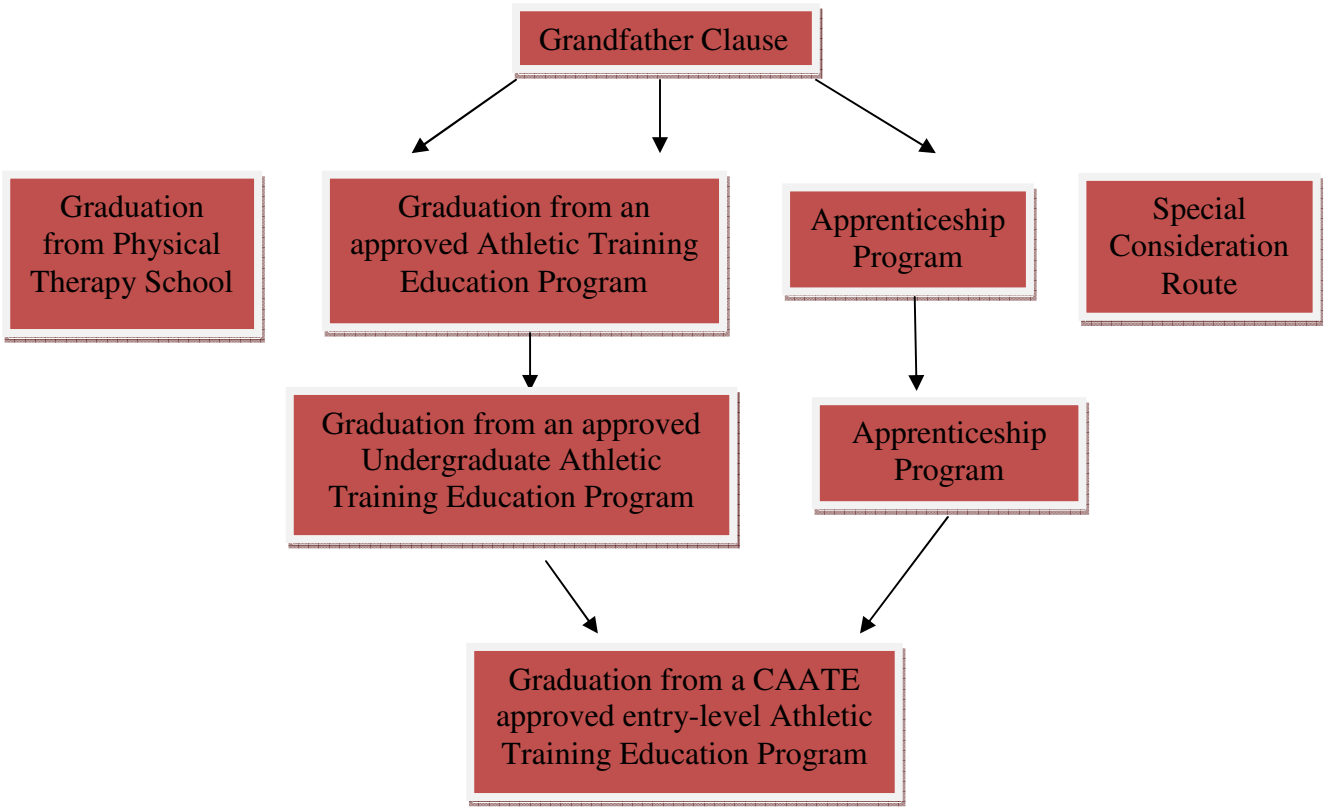

Figure 2: Routes to become a Certified Athletic Trainer

The first certification exam was offered in August 1970.[16,17] This exam divided into 3 sections included 75 written questions pertaining to anatomy, pathology of athletic injury, and injury prevention, 75 written questions on theory and practical application,

and 5 oral-practical questions.[16] As athletic training education progressed, so did the certification exam. The next version of the exam, similarly to the first exam, was made up of three parts, but was labeled: multiple-choice, practical exam of demonstrated skills, and a written simulation test designed to recreate realistic athletic training scenarios.[16] The three parts were taken all together or separately, but individuals needed to pass all three parts to become certified. This format, minus evolving knowledge and content, remained the same until June 2007 when the first computerized certification exam was completed.[21] The most recent version is computer-based comprised of two parts. Candidates complete between 100-125 multiple-choice questions and 5-6 hybrid questions. The hybrid questions are a representation of the previous written simulation questions.[21] Each question is validated by a panel of independent judges and referenced to current resources from the literature.[21] Candidates have a total of 4 hours to complete the exam, and the minimum passing score is 500/800.[21]

To keep up with the constant development in athletic training education and the continued research within the health care profession, the BOC needs to continually develop the certification exam structure and content. This is provided through the Board of Certification Role Delineation Study.[23]

Role Delineation Study

The first certification examination was developed by surveying NATA members to uncover the daily responsibilities assumed by the working AT[16]; a procedure, which remains in place today. The certification examination includes materials from the six domains of athletic training.[16,23] These domains are identified by surveying entry-level athletic trainers about their professional duties and responsibilities, and this provides the

framework for the certification exam.[16,23] This survey is known as the BOC Role Delineation Study, and the latest edition (*fifth*) was published in 2004.[16,21,23] The first Role Delineation Study was published in 1982, and it is reviewed and revised every five years.[21] The 2004 Role Delineation Study *Fifth Edition* is broken down into domains, tasks, knowledge, and skills. The six domains include prevention, clinical evaluation and diagnosis, immediate care, treatment, rehabilitation, and reconditioning, organization and administration, and professional responsibility. Within the Role Delineation, each domain is broken down to identify specific concepts and skills needed for an entry-level athletic trainer.[23]

The Role Delineation Study is an extremely useful tool for students preparing to take the BOC exam. Since the Role Delineation includes the specific content areas covered in the certification exam, students have the ability to narrow down their studying. After taking and passing the exam and graduating from their undergraduate curriculum, athletic training students have a multitude of options. Athletic trainers could enter the work force by obtaining high school, collegiate, professional, clinic/hospital, physician extender, or industrial positions. Athletic trainers could also continue their education in post-professional programs.

Post-Professional Athletic Training Education

Post-professional athletic training education began back in 1972 when the NATA approved the first programs at Indiana State University and the University of Arizona.[16,17,24] Graduate athletic training programs were originally developed for individuals already with a degree who wished to become a certified athletic trainer.[16,17] It is important to remember at this time completion of an athletic training graduate program

was one way to take the certification exam. Post-professional programs were later organized to provide entry-level athletic trainers with a more advanced breath of knowledge and research experience.[19,25] The first *Standards and Guidelines for Post-Certification Graduate Athletic Training Education Programs* were available in 1988[19], and they were most recently published again in May 2002 by the Post-Professional Education Committee (PPEC).[24] These guidelines place an emphasis on athletic training education that promotes variety of curricular content (teaching, administrative, and research) and clinical experiences, increases critical thinking and writing skills, and prepares students for leadership roles.[19,24,25] The PPEC is responsible for developing a post-professional education structure that will help prepare advanced practice clinicians, further develop a specialized body of knowledge through research and scholarship, and prepare clinicians for specialized settings.[25] Post-professional education includes continuing education units, internships, residency, fellowships, and graduate level educational programs.[25] Post-professional master's degree programs in athletic training are not accredited by CAATE but through the NATA. As of Spring 2010, there are 16 post-professional athletic training education programs (PATEPs) in the United States accredited by the NATA.[26]

Athletic trainers can even further their education by completing a residency/fellowship program. These fellowship programs are few and far between, but provide athletic trainers with the development of research skills and specializations in certain areas.[19,25] They would allow newly certified athletic trainers to increase their confidence in their clinical decision making and solidify their entry-level education while working as a professional, under that watchful eye of their supervisors.[25] The New

Hampshire Musculoskeletal Institute, Steadman Hawkins Clinic (Vail, Colorado), and Emory Sports Medicine Center (Atlanta, Georgia) are a few examples of athletic training fellowship programs.[25] These programs provide athletic trainers with an intense year of advancement in orthopedic and research skills.[25] Over the past 5 years, the PPEC has been trying to develop specialty certifications for athletic trainers.[25] The committee plans to develop a structure that includes eligibility criteria and development of a valid and reliable certification exam.[25]

Currently about 70% of athletic trainers hold a master's degree[1,16,19,25,27], but many of their master's degree are not in athletic training.[19,25] Often students are encouraged by others to pursue a degree in another area to seem more marketable[19,25], as seen in Figure 3. Clinical instructors also push students to choose a graduate school based on graduate assistantships.[19] Post-professional athletic training education is an extremely new concept to the profession when compared to entry-level education. The continual development should become the focus of the PPEC, Education Council, and the NATA.

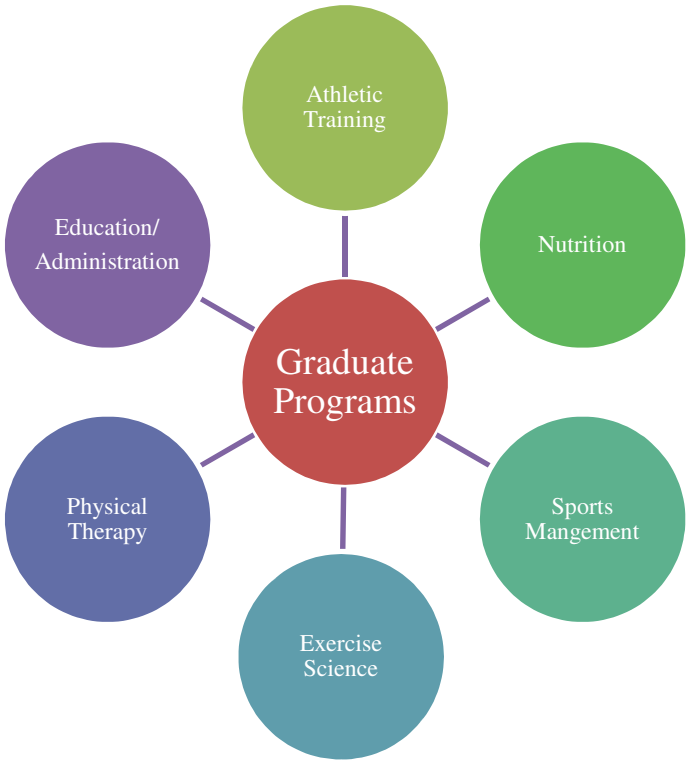

Figure 3: Popular Graduate Programs Pursued By Entry-Level Athletic Trainers[19,25]

Professional Socialization

Defining Professional Socialization

Professional socialization is a complex learning process designed to prepare and give insight to how individuals understand and fulfill their professional responsibilities.[28,29] Through this process, individuals obtain the knowledge, skills, norms, values, roles, and attitudes pertaining to their profession.[13,14,28,30-32] Socializing agents often play a major role during professional socialization. Mentors or clinical instructors are the most influential socializing agents, but others can include patients/athletes, peers/classmates, and faculty members.[30,31,33-35] Frequently, the goal of socialization is to prepare its participants to enter and adapt to new roles.[31,33] The

socialization process is divided into different stages and sub-phases depending on the stage of the individual.

Normally, professional socialization is described in two phases, anticipatory and organizational.[14,15] Anticipatory socialization includes experience before entering a work setting[14,15], including recruitment[11,12,29], and formal educational programs or professional preparation.[11,12,15,29,33] Professional preparation is sometimes divided into two segments: formal academic education within a university setting and a period of apprenticeship or clinical training.[31] Anticipatory socialization occurs when individuals attempt to imagine what it would be like to engage in a certain role or profession.[36] Organizational socialization occurs when individuals enter into their respected work force[12,15], and they interpret and assume the role of a competent professional.[11,29,37] Organization socialization is often separated into period of induction and role continuance.[14,37] Induction processes usually involve orientations or instructional sessions[14] and involve the transition from student to neophyte.[37] Role continuance focuses on adjusting to organizational demands and continual learning of a professional role.[14] Mensch et al[12] described organization socialization as individuals who must adjust the ideals and theories they have learned in their professional socialization to the demands and imperfections of the real world. Although there are distinct phases, they can often overlap and occur in tandem[11,29,32], as seen in Figure 4.

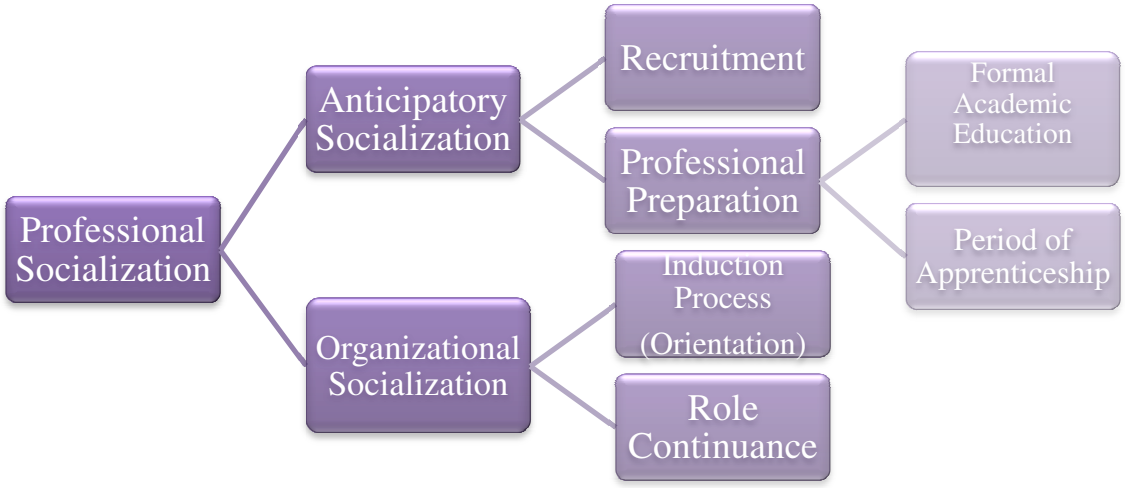

Figure 4: Process of Professional Socialization

Professional socialization has become a major focus in the allied health care profession with research studies in athletic training[11-15], physical education[29,37,38], nursing[32,33], medical students[34,36], dentistry[30], and occupational therapy.[31] The concept of socialization is same the across health care professions, but phases and processes of the socialization can significantly vary. By gaining a better understanding of the socialization process, undergraduate education and professional development can help better prepare and retain these individuals. This can help decrease attrition rates, as well as provide individuals greater details of what certain professions actually involve.

Athletic Training Students

Athletic training students (ATSs) are categorized into the first phase of socialization, anticipatory. This involves students being recruited into and receiving formal education from a CAATE accredited program. Socialization of the ATS has only

recently been studied[3,11,39], but athletic training professionals has an broad range of research behind it.[12-15]

Two important components of recruitment include attractors (characteristics of a profession that compel interest) and facilitators (individuals or events that can influence decisions).[3,39,40] Attractors to the career of athletic training have been attributed to continuation of sports association (be a part of a team), service to others (help and teach others by becoming a health care professional), and developing interpersonal relationships (work with athletes and children).[3,39] Facilitators, often referred to as clinical instructors or mentors, will be discussed in a later section. The next step in anticipatory socialization involves professional educational preparation.

A study by Klossner[11] gives in depth discussion about how ATSs develop professionally throughout their educational experiences. These results revealed that legitimation, looking to others for acceptance or reinforcement, begins the process of professional socialization for athletic training students.[11] Klossner[11] describes three factors that give way to legitimation including role of socializing agents, effect of role performance, and influence of perceived rewards. Socializing agents include athletes, clinical instructors, graduate students, coaches, peer mentors, and themselves by helping students gain confidence in their role.[11,14] Building trusting relationships with socializing agents is rewarding and important to student and professional athletic trainer development.[11,14,15] Role strain and conflict experienced by ATSs could be considered a negative effect of insufficient socialization.[11] Informal learning, which helps promote and boost self-direction, reflection, and critical-thinking skills[12], is crucial for students in the

socialization process.[14,15] The process of socialization has been heavily studied in other allied health students, aside from athletic training, but has reported similar findings.

Other Health Care Students

Students in other allied health professions (nursing, medical school, dental school, occupational therapy, etc.) are usually still in the beginnings of the process of professional socialization. Like athletic training students, this means students are still be introduced and formalized into their respected professions through education and clinical internships. The data available for athletic training and nursing students focus on undergraduate education; however, the medical, dental, and occupational therapy student literature is focused in post-professional, or graduate education. Although there is a difference between undergraduate and graduate education, there are common socialization themes discovered within both. Unlike the socialization literature regarding athletic training students which is a fairly recent topic, socialization of other health care educational programs have been studied for many years. Within this area, researchers have focused heavily on anticipatory socialization process[31,32,34,36] (recruitment and attraction factors), role of mentoring/clinical supervision on socialization[31,33,41], and perceptions of their role as an allied health care provider (physician, nurse, etc).[30,31,34,42] A common theme discovered across all professions was the impact of patient interactions affect on the socialization process of young professionals.[30-32,34] Students seemed to connect with a mentor, whether clinical instructor or faculty member, and this was reported as a significant impact on the socialization process within all allied health professions.[32,33,41] In most allied health programs, most students go through both an educational program and clinical experience. Socializing influences that students

encounter usually have a greater impact on their professional education as academic and clinical information.[31] New students enter a setting either individually or as a part of a collective group which can influence professional socialization.[31] Education, orientation, and clinical occupational experiences can influence professional behaviors.[33] As seen in Figure 5, students can experience profound changes as they progress through the socialization process. This figure shows that the socialization process occurs prior to formal education, during education, and into the professional career, as well as phases of socialization occurring simultaneously.[31]

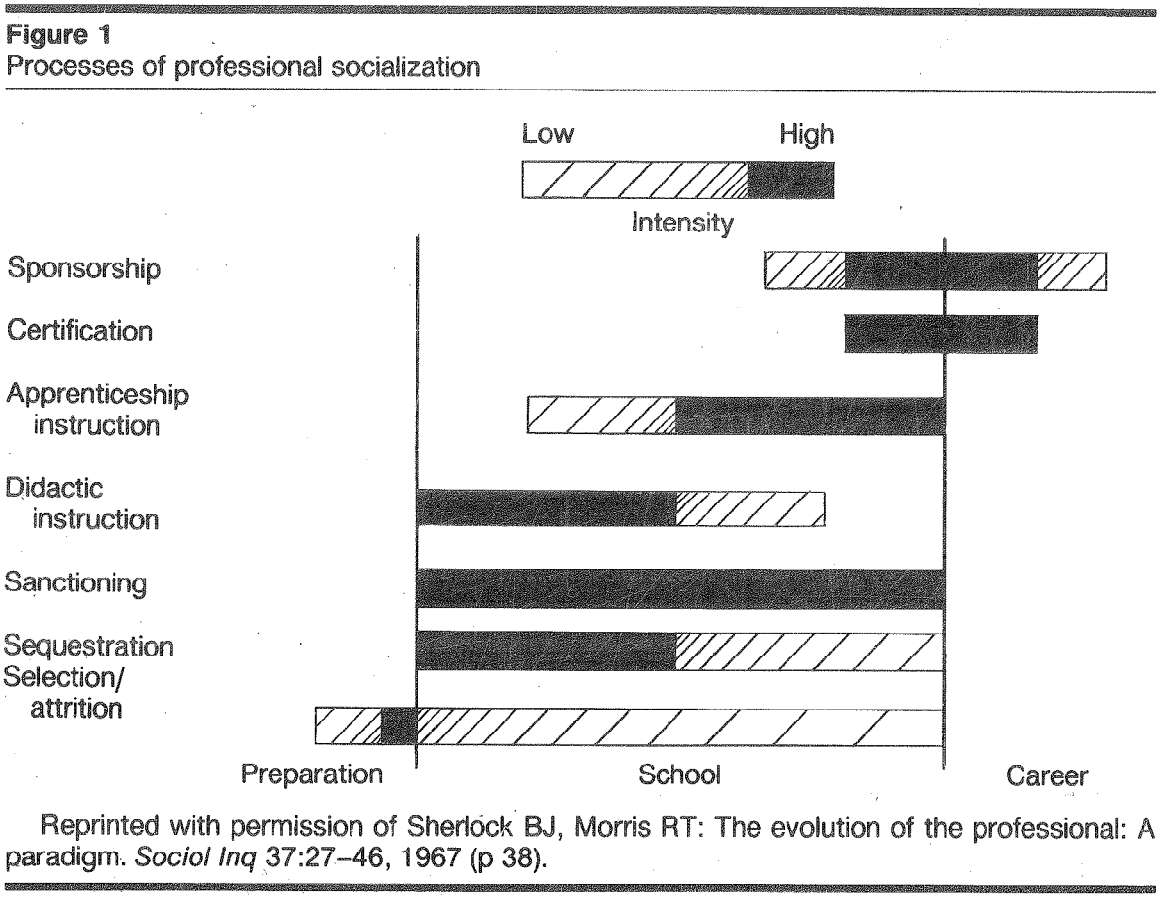

Figure 5: Processes of Professional Socialization[31]
*Taken from Sabari, JS. Professional Socialization: implications for occupational therapy education. *The American Journal of Occupational Therapy*. 1985;39(2):96-102.

Many prospective students begin the socialization process, which can sometimes be fairly lengthy, prior to the start of formal training.[36] Some students consider pre-clinical learning years to be irrelevant to their professional socialization[30]; however, the first clinical year has been considered very important and gives students a surge of confidence.[30,34] Students often progress into the socialization process by observing and participating in professional roles, thus learning how to work in clinical areas.[33] Some formal education programs concentrate on teaching facts, but leaves students to deal with professional socialization on their own.[30,34]

Allied health students report a variety of socializing agents (role models) including patients, peers/classmates, clinical instructors/mentors, physicians, and faculty members.[30,31,33,34] A study by Eli et al[30], emphasized the importance of patients as socializing agents for dental students because they contribute to the integration of the students' self-image and image of the profession. Pitkala et al[34] also discovered the same trend of support and trust from patients increased medical students' self-image as a future physician. Students can develop socialization networks that encourage leadership through socializing agents.[31] Although many commonalities exist in the socialization process for allied health students, the phases of socialization can be quite different.

Ousey[33] reported five stages of socialization for nursing students: initial innocence, psyching out, role simulation, provisional internalization, and stable internalization. The phases of socialization for dental students involved an image of the "competent" dentist and development of a professional self-image.[30] Pitkala et al[34] revealed many aspects medical students encounter during socialization: lack of credibility, future physician self image based on patients' feedback, feeling like an

outsider in hospital, stress related to medical studies, and fear of humiliation from staff. Professional socialization continues considerably after students receive their professional degrees and certifications and enter into the work force.[31]

Athletic Training Professionals

Unlike students, working professionals experience the second stage of socialization, organization socialization. Organizational socialization occurs after entering the work setting[15], and it relates to how individuals adjust to their new roles and learn about what is suitable practice in dealing with the demands of their work.[14] Even though researchers have investigated professional socialization of athletic trainers (ATs) in different contexts, there are multiple similar themes that have arisen.

Socialization of athletic trainers, occurs over time, and involves a variety of different modes and phases. These processes are not limited to, but include informal learning, creating networks for learning, organizational entry/influences, role evolution/dynamics, gaining stability, and quality of life issues.[12-15] Some ATs, majorly in the high school setting, experience nonstructural, informal processes, often operating independently and relying on trial-and-error learning, relative to orientation into their professional responsibilities.[14,15] Pitney[14] describes new athletic trainers contacting fellow ATs to learn how to adjust with their new roles and responsibilities. Figure 6 represents the findings from Pitney[14] as a conceptual framework. ATs can encounter role strain during their initial socialization by feeling overwhelmed with high volume of work and misunderstanding of how jobs are suppose to be completed.[12,15] Role strain is habitually influenced by an assortment of competing perspectives from athletic directors, team physicians, peer ATs, and coaches.[12] Athletic trainers, often working in collegiate

settings, sometimes feel devalued during the initial socialization process from bureaucratic aspects of their job, unwritten aspects of the organizational hierarchy, and pressures to win and have athletes healthy.[13] A final commonality of socialization involved ATs role evolution being deeply affected by the relationships they had with the athletes they provided care.[13,15]

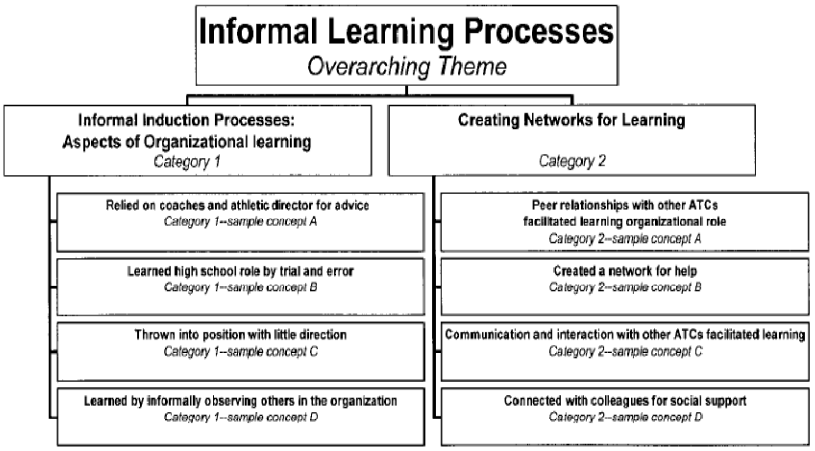

Figure 6: Conceptual framework of the Informal Learning Processes[14]
*Taken from Pitney WA. The Professional Socialization of Certified Athletic Trainers in High School Settings: A Grounded Theory Investigation. J Ath Train. 2002;37(3):286-292)

The socialization process of working professionals is fairly complex, very individualistic, setting specific, and it is an on-going process. By looking at other allied health professionals socialization processes, a better holistic understanding can be achieved.

Other Health Care Professionals

Understanding professional socialization can help gain a better understanding of the factors influencing prospective individuals.[29] The process by which individuals are

professionally socialized has been linked to a number of personal, situational and organizational factors through the lifespan.[32] Socialization into one's career comprises many complex and interwoven events[37], and often it is a repetitive process of reworking professional identity.[32] Different health professions have commonalities and dissimilarities within the organizational phase of socialization.

A common theme in the process of socialization recognized socializing agents and role models as important. Physical education teachers who received mentoring reported a positive transition into their role, and they expressed the need for the continued guidance and support.[29] A study by Price[32] noted role models and mentors were a great source of support to individuals and often made a difference in the decision to remain in nursing. Socializing agents ranged from family, friends, or significant others to patients, fellow students, educators, or clinical instructors.[32,37,42,43] Reality shock, pertaining to unexpected roles and responsibilities, effected the transition from student to professional in many cases.[29,32,37,42] The reality shock process consists of four phases: honeymoon, shock, recovery, and resolution.[42] Socialization is strongly associated with a person's preconceived notions and expectations of their profession, and it involves a process of moving from previously held assumptions and expectations towards the reality in the practical setting.[32] A final shared topic focused on professionals, especially first year, feeling marginalized, isolated, insecure, and anxious in their professional role.[29,32,37] Professionals are sometimes expected to adjust to their new roles without explicit attention to the process.[42]

The main differences evolve when discussing distinct factors, influences, and steps surrounding the process of organizational socialization. Physical education teachers

experience reality shock, role conflict, isolation, and a wash-out effect as they progress through socialization.[29] Williamson[37] discovered four steps of socialization for teachers including work task definition, acceptance and support, evidence of competence (reinforce and reward positive work performance), and congruent evaluation and feedback on role performance in all aspects of a job. A variety of main themes arise in nursing socialization as well. They consist of supportive work environment, positive preceptor experience, comprehensive orientation process, sense of professionalism, clarity of role expectations, self-confidence, influence of ideals, meaning individual's self concept of being a nurse, paradox of caring, and acceptance by others.[32,43]

Professional socialization process is complex, with multiple dimensions impacting upon each individual attempting to find his or her place in the work world.[29] Researchers have emphasized that a program of organization socialization should be implemented to assist newcomers entering their roles and responsibilities.[37]

Role of Clinical Instructors/Mentors

Mentorship and clinical supervision are key aspects in the socialization process of both professionals and students. Mentoring is involved in both phases of professional socialization. Students have mentors during recruitment and to assist them through their education, and professionals have mentors to help them transition into their new roles.[44] Clinical supervision is a "process that seeks to create an environment in which participants have an opportunity to evaluate, reflect and develop their own clinical practice and provide a support system for one another".[41] Clinical supervision is often a positive influence for individuals in many different aspects. Mentoring is a vital role in developing professionals.[33,35,44] Specifically, athletic training students desire supervisors

to demonstrate mentoring behaviors.[35] These students face a variety of professional development challenges during the anticipatory socialization process due to the complexity of academic, clinical, and professional environments, and they repeatedly look to mentors for assistance.[35]

Mentors should contribute to the development of an environment in which effective practice by students or novel professionals can be fostered, implemented, evaluated, and disseminated.[33] Mentors can help individuals "fit into" the clinical setting, as well as feel welcomed and a valued member of the team.[33] Studies have repeatedly shown that mentees perceive clinical instructors should have certain characteristics. They should be befriending, planning, integrating, approachable, responsible, accessible, and allow protégé initiative.[33,35] Pitney et al[35] suggested that athletic training students would benefit from having a variety of mentors to gain insight about the roles involved with different job settings.

Learning happens best when clinical experiences and reflections collide, and students learn a great deal while gaining clinical experience directly with a mentor.[33,45] Individuals who have experienced clinical supervision include increased feelings of support, personal well-being, and supportive work environments.[41] Mentorship and clinical supervision has been described to effect individuals in positive many positive ways. The importance of the mentor role involves bringing together theory and practice, maintaining and developing an effective learning environment, providing professional support and guidance, enhancement of the quality of patient care, career progression, and assisting in socializing students into their occupational roles.[33,41] Athletic training students who acknowledged having a mentor often indentified their clinical instructors.[35]

As represented in Figure 7, Pitney et al[35] describes mentoring relationships founded on interpersonal connections and focused on the educational needs of the student.

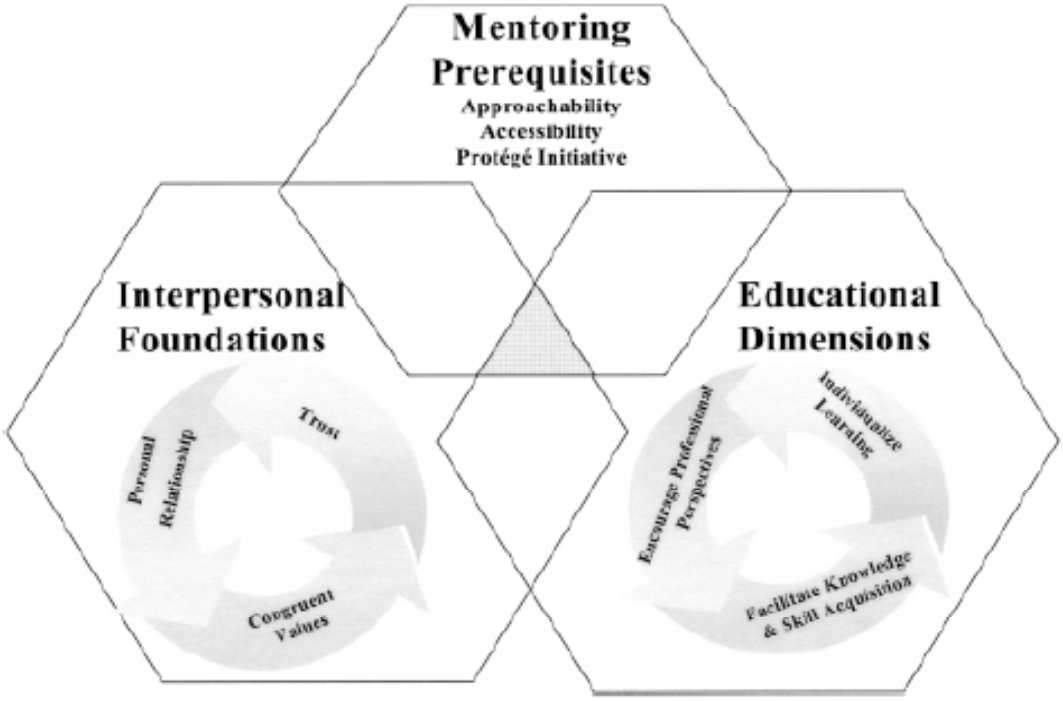

Figure 7: Conceptual framework of the Mentoring Processes[35]
*Taken from Pitney WA. A Grounded Theory Study of the Mentoring Process Involved With Undergraduate Athletic Training Students. J Ath Train. 2004;39(4):344-351)

The role of the mentor is pivotal in preparing individuals for their future occupational roles ensuring that they possess the relevant knowledge and skills to practice.[33] Mentoring is a socialization strategy comprising fostering an interpersonal relationship and addressing the educational needs of individuals.[35] Clinical supervision and mentorship play a key strategy in recruiting and retaining prospective students and professionals.[41]

Retention and Attrition

Students

In higher education, student retention and attrition has been studied for many years.[4-6] Hedl[8] reported 30-40% of entering college freshmen never achieved a bachelor's degree and most dropped out within the first academic year. 35-61% of new nurse graduates change their place of employment or leave the nursing profession within the first year of nursing[32,41], while attrition rates for medical students range from 7-14%.[7,8,46] The model suggested by Tinto[4] states that a student must have a commitment to his or her respective institution and the goal of completing a college degree in order to persist as a college student. Confidence and self-efficacy have a strong influence on an individual's persistence in any task.[2] A student leaving different programs of study is a complex process that can be influenced by a number of factors.[2]

Understanding what attracts an individual to a profession helps to determine how an occupation recruits its students and can enhance the education of future professionals.[3] A key concept in recruitment involves comprehending a potential recruit's perceptions of the skills and abilities necessary for certain professions.[39] This can help identify misconceptions, as well as what attracts individuals and discourages others from entering certain professions.[39] Educators and employers can benefit from a clearer understanding of how recruits are attracted to and perceive their occupation.[3,39] Attractors to allied health professions include to help others, to work with athletes/patients, to have a positive impact on others' lives, to become a health care professional, to teach young people, to work with children, to be a part of a team.[3,39]

Throughout the allied health literature, focus has been devoted to retention models, identifying reasons for leaving, and reducing attrition. Retention models include anticipatory factors[2], academic integration[2,8], clinical integration[2], social integration[2,8], and motivation.[2,8] Researchers recognized a plethora of reasons for students to leave programs. Most reasons were presented as voluntary from students, but some students were asked to leave their programs by faculty.[7] Reasons included role strain[2], time commitment[2,9], desire to pursue another career[2,7], academic difficulty[7-9], personal problems[7,8], transferred to another school[7,8], health problems[7,8], work-related issues[8,9], and financial pressures.[9] A final potential contributor to withdrawal and non-completion of health degrees is the flawed perception the student has of what is involved in their desired profession.[2,7-9] To reduce attrition, career guidance and information should be provided for potential applicants.[7] By making more information available, students may obtain a better realistic understanding of the profession they are about to enter.

The thoughts and actual process of dropping out can significantly increase when students experience burnout.[22,46] Burnout is a form of distress that can be associated with school, professional, or family responsibilities, and it has been associated with turnover of personnel in allied health professions.[46] Burnout is commonly classified with different varying levels of degrees that include emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA).[22,46] A high level of burnout is associated with high EE and DP and low PA.[22] Burnout has been attributed to lowering a student's sense of self-efficacy, motivation, and willingness to persevere through the challenges of school.[46] Burnout among professionals could potentially have its beginnings in the burnout experienced as a student.[22] For students, burnout is not always a constant feeling.

Students tend to experience burnout at different times throughout each semester and their entire academic career.[46] Burnout can be influenced by course loads, clinical assignments, significant others, and chronological time in the semester or academic career.[22] Besides burnout, students can experience many different stressful demands all along their career.

On top of academic pressure, allied health students encounter multiple other stressful variables and commitments that require the regular investment of time and energy.[47] Stress is defined as " a particular relationship between a person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being".[48] Figure 8 presents a list of stressors for multiple health profession students including medicine, dentistry, nursing, allied health, and athletic training.

Stressors	Medical	Dental	Nursing/ Allied Health	Athletic Training
Academic Overload	X	X	X	X
Strained Relationship with Faculty	X	X	X	X
Poor Orientation	X			
Poor quality of teaching	X	X		
Lack of perceived relevance of education	X	X		
Working with cadavers	X			
Relationship with patients/athletes	X	X	X	X
Competition among peers	X	X		
Lack of leisure time	X	X	X	X
Less time to spend with family	X	X		X
Financial problems	X	X	X	X
Manual skills required		X		
Administrative duties			X	
Perceived lack of proper clinical knowledge	X	X	X	X
Role conflict			X	
Frequent examinations	X	X	X	
Grades in school	X	X	X	X
Self-Image				X
Health issues				X
Travel demands				X
Time management			X	X
High performance expectations				X

Figure 8. Stressors Commonly Present in Health Professions Students[47,48]
*Adapted from Table 1 Stressors Commonly Present in Health Professions Students. Dutta AP, Pyles MA, Miederhoff PA. Stress in Health Professions Students: Myth or Reality? A Review of the Existing Literature. Journal of National Black Nurses Association. 2005;16(1):63-67. (medical, dental, nursing/allied health) with additions made for athletic training

Stress manifests in a variety of ailments for each student. They include sleep disturbances, suicidal thoughts, anxiety, depression, apprehension, fear, insomnia, muscle tension, headaches, mental inefficiency, amotivation, alcohol consumptions, avoidant behavior, irritability, unstable emotions, inability to concentrate, and loss of appetite.[47,48] With the predominance of burnout and stress experienced by students, it is not surprising that both burnout and stress are present in working professionals as well.

Working Professionals

Attrition, or leaving one's profession, is a major concern especially in health care professions. Attrition not only affects working individuals, but also clients/patients, employers, and organizations.[40] It is essential to identify and understand factors specific to different professions which may be important in an individual's deciding to pursue and leave a job, and these factors can be recognized to potentially reduce the risk of attrition.[40] Stress can have a negative effect on job performance, and personal relationships and characteristics.[49] A multitude of integrating factors can lead to attrition in all professions, as seen in Figure 9. Recent literature has related job satisfaction/dissatisfaction[50,51], burnout[49,52-54], and work-family conflict.[55-58]

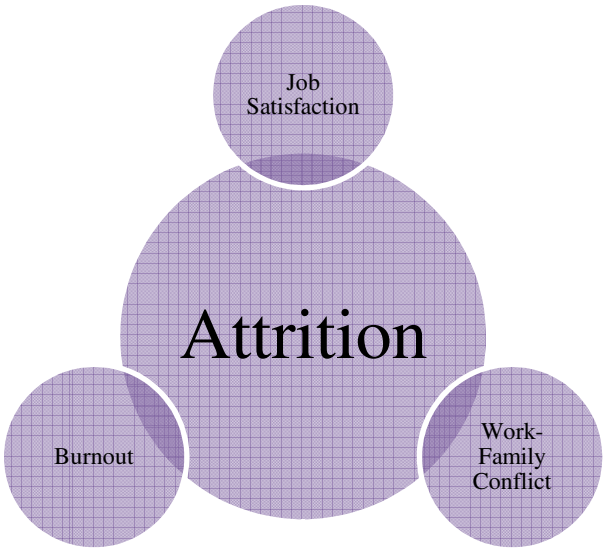

Figure 9: Factors associated with attrition in health care professions

Job satisfaction is defined as one's perception, usually positive, towards his or her professional responsibilities.[51] Job satisfaction is a key variable to retain staff, manage turnover, and prevent individuals from leaving.[50,51] Aspects of job satisfaction/dissatisfaction include chance to help people, feeling sense of achievement,

recognition for work, opportunities for career advancement, schedule flexibility, financial compensation, supportive colleagues and peers, and control over working conditions.[40,50,51] These factors can take both a positive and negative effect on an individual's job. Pitney[59] reported that ATs in the secondary school setting had a strong relationship to their job and professional commitment. This commitment was perceived as having a strong sense of responsibility to patients/athletes. Rewards (intrinsic/extrinsic), respect (giving/receiving), and rejuvenation (time away from athletic training and peer interactions) were also determinants of professional commitment.[59] Studies pertaining to physicians and nurses state that only slightly above 50% of individuals were generally satisfied with their jobs.[50,51] Job dissatisfaction has been one of the most frequently cited reasons for leaving health care professions.[51] Job dissatisfaction is often a result of professionals developing burnout.

Burnout has recently become a popular topic among health care professions. Burnout has been defined as a psychological syndrome resulting in chronic stress that involves negative attitudes and feelings about work and the inability to manage work-related stress.[40,49,52,53,60] It can be very personal in nature, but often develops when individuals work too hard for too long in high-pressure situations.[49] Burnout usually manifests as emotional exhaustion, depersonalization, and a lack of personal accomplishment.[40,49,52,54,60] In health care professionals, burnout is experienced most often within the first 1-5 years of their careers, possibly because they lack adequate exposure to job stressor, idealization of the job, and self-selected attrition.[52,54,60] A study by Hertel[53] discovered that nurses face average levels of burnout, and it is often a factor in them leaving their organization or profession. Moderate burnout levels were also noted

among physicians.[54] In a study by Kania et al[52], athletic trainers were reported to experience low to average levels of burnout. Similar research found 18% of all athletic trainers experience moderate to severe burnout and 32% of all athletic trainers experience burnout some point during their career experience.[60]

Burnout can be caused by a variety of stresses, as presented in Table 5. Stressors presented to be common across the board for health care professions. It is suggested that spending more time on activities of enjoyment and less time on work-related tasks may result in less stress and more personal accomplishment.[52] Camaraderie between co-works has been shown to decrease levels of burnout, as well as an active social life outside of the work setting.[49] In some contexts, burnout is often a result of work-family conflict an individual experiences.

Table 5. Sources of Stress that Lead to Burnout[40,49,52-54]

Poor working conditions
Work overload
Role conflict
Role ambiguity
Minimal decision-making power
Large number of athletes/patients to care for
Decreased resources
Long hours
Pressure from superiors or administrators
Inadequate salary
Covering for another employee
Working overtime
Making critical on-the-spot decisions
Staff shortages
Inflexible work schedule
Perfectionist or idealistic mentality
Personal variables (age, gender, marital, parental, and acculturation status
Lack of measuring personal accomplishment

Work-family, or work-life, conflict (WFC) occurs when individuals experience difficulties managing the demands and responsibilities from their personal lives due to their job.[55-58] This has significant implications in terms of attracting and retaining health care professionals. Stress and overload that arise from the demands associated with home and work roles time and again result in WFC.[55] WFC is consistently associated with job/life dissatisfaction, burnout, fatigue, emotional distress, turnover or intentions to leave an organization/profession.[55,56,58] Higher work-family conflict contributes to poorer job/life satisfaction, greater risk for job burnout, and greater intentions to leave the profession.[56-58] WFC in health care professions has been evident in the reasons provided for the leaving the profession and reasons for student's not entering the profession after graduation.[55,58]

Work-family conflict takes a toll on many health care professionals. A study by Mazerolle et al[55] reported 68% percent of athletic trainers experience WFC. Athletic trainers felt consumed by their jobs because of the high volume of hours worked and travel necessary to meet their professional responsibilities.[55] Work-family conflict has been noted as an episodic phenomenon for a substantial number of nurses; 50% reported work interference with family 1 day or more per week.[58] WFC has also been described in the athletic literature; a large number of university coaches tend to encounter work-family conflict.[57] However, Dixon et al[57] showed that organizational and family support were related to lower WFC. Antecedent to work-family conflict can be categorized in three general areas: work environment, family environment, and personal characteristics.[58] Table 6 presents a list of the many different potential causes of WFC.

Table 6. Antecedents to Work-Family Conflict[55-58]

Long work hours/volume hours worked
Travel responsibilities
Staffing patterns/shortages
Inflexible work schedule
Overlapping responsibilities
Lack of control
Time spent away from home
Coping mechanisms
Nonfamily-friendly work environment
Non-traditional work hours
Organizational restructuring
Work setting/environment
Person characteristics: gender, age, marital status, parental status, family structure, values, personality, level of education
Personal earning/salary

Job satisfaction, burnout, and work-family conflict all play an important role in the attrition of health care professionals. It is imperative to understand and recognize the factors that influence attrition because a better awareness can help to retain these individuals.

Qualitative Research

Definition

Qualitative research has been used in many fields as a way of examining the social factors that influence an occurrence.[61-63] This type of research focuses on paradigms, social factors, and the environmental influences of why people act or think the way they do.[61-63] By employing interviews, phone calls, focus groups, and on-line questionnaires, discussions are stimulated and common themes are found.[61-63] Throughout the data collection process, these common themes are noted and are the focus of the study. It is hoped that these themes can be applied to the entire population even

though the research is based on sampling a set population.[61-63] Qualitative research, which is inductive in nature, takes the specific data and themes obtained and attempts to make generalizations.[61-63]

Compared to Quantitative

Quantitative research, deductive in nature, relies on general findings and hopes to narrow that down to specifics in the research.[61-63] This type of research creates hypotheses, controls for variables, and relies on numbers and statistics to show results.[61-63] Laboratory studies looking for cause and effect, or direct relationships work best for quantitative research; however, observations, environmental, and social factors shaping a person's actions are best examined using qualitative research.[61-63] Table 7 contrasts the difference between qualitative and quantitative research.

Table 7. Comparison of qualitative and quantitative research approaches[63]

	Quantitative Approach	Qualitative Approach
Questions	What works? What is the power of proof?	What's going on? What are people experiencing? Why do people do what they do? Why don't they do what they are expected to do?
Reasoning	Deductive; hypothesis testing	Inductive: hypothesis construction
Purpose	Result-oriented: to measure, to predict, to correlate, and to determine causality	Process-oriented: to learn while doing, to enlighten, to classify, to gain in-depth understanding, to interpret, to seek a deeper truth
Strength	Reliability (under the study conditions)	Validity (applies to everyday practice)
Research strategies	Randomized controlled trials, closed questionnaires, case vignettes, observational cohort studies	Field observations, descriptions, interviews (focused, semistructured),
Methods	Variables to be collected are predefined (closed process) Strict linear sequence: (study	Back and forth movement (cyclic process) between data collection and analysis allowing

	design, data collection, analysis) Researcher interdependent	the incorporation of new variables as they emerge (open process) Researcher dependent (the researcher collects and interprets the data) Triangulation: several research methods are used in combination
Sampling	Random, large number of included patients or respondents	Purposeful, until no new pertinent information emerges
Data analysis	Statistical processing of numbers, strict "technological"	Language coding (words, gestures, nonverbal communication), explanatory model, "interpretative"
Designed to tell about	Populations	Social theories
Example	Measured quality of life, survival rates, survival strengths	Experienced quality of life
Advantages	Objectivity, strong arguments, rational, structured, minor involvement of researcher in the conduct of the study	Respects everyday clinical real-life practice, contextual, circular, individual, susceptible to singularity, requires less time, and less funds
Disadvantages	Context not taken into consideration, time-consuming and costly, lack of explanation of the results, discrepancies between scientific evidence and clinical practice, limited unanticipated factor assessment	May be anecdotal, emotional, irrational, excessively open leading to an overwhelming amount of detail, applicability of results only to a specific context

*Taken from Rusinová, K, Pochard F, Kentish-Barnes N. Qualitative research: Adding drive and dimension to clinical research. *Crit Care Med.* 2009;37 (1 Supplement): S-140-S-146.

Unlike quantitative research which relies on valid and reliable instrumentation to establish credibility, qualitative research confirms trustworthiness and equivalents of validity and reliability (credibility, transferability, and dependability) with various strategies.[61,62,64] Table 8 outlines the questions and strategies associated with the three components of trustworthiness of data.[64]

Table 8. Components of Trustworthiness[64]

TRUSTWORTHINESS

Credibility	Transferability	Dependability
Definition: the plausibility of a study's findings	Definition: the ability to apply the findings of a study to similar environments	Definition: the ability to learn and understand what is really occurring
Key Question/Issue Addressed: Do the results capture what is really occurring?	Key Question/Issue Addressed: Is there enough descriptive information to allow a reader to determine whether the results are applicable to similar contexts?	Key Question/Issue Addressed: Are the results believable?
	Analogous to: external validity	Analogous to: reliability
Research Tactic: triangulation of data; long term engagement; peer examination; member checks	Research Tactic: rich description of research participants and the emergent themes	Research Tactic: triangulation of data, peer debriefing, and member checks

*Taken from Figure 5.1 The umbrella of trustworthiness. Pitney WA, Parker J. Qualitative Research in Physical Activity and the Health Professions. 2009; Champaign, IL Strauss AL, Corbin JM. Basics of Qualitative

Application to ATS Career Decisions

Numerous qualitative studies have been done in allied health professions in multiple areas. Many socialization studies have used qualitative methodologies in athletic training[11-15,35], nursing[43], physical education[37], and medicine[34]. Allied health professions have also presented qualitative studies on retention/attrition[39], and stress sources.[47,55,56] Quantitative studies impart statistics and numbers, and they do not give in-depth information regarding influences affecting individuals in their professions. Current literature repeatedly states attrition in the allied health field after graduation from schooling, but rarely research is concentrated in showing what factors attribute to this. Professional socialization processes can significantly vary across different health care students, and by using quantitative methods the results have no room for alterations.

Factors attributing to attrition rates can be very personal and individualized, like the socialization process. Using a qualitative approach, in depth results can be produced in the hopes to create common themes among all subjects. This can provide information for educational program directors, faculty, and clinical instructors on how to help aid and shape their students into superior professionals. By analyzing and gaining insight, via qualitative methods, the missing link between students and their post academic career plans can be better understood.

References

1. National Athletic Trainers' Association Membership Statistics. . http://www.nata.org/members1/documents/membstats/2008EOY.htm. Updated 2010. Accessed October, 2009.

2. Dodge TM, Mitchell MF, Mensch JM. Student Retention in Athletic Training Education Programs. *J Athl Train*. 2009;44(2):197-207.

3. Gardiner-Shires A, Mensch J. Attractors to an Athletic Training Career in the High School Setting. *J Athl Train.* 2009;44(3):286-293.

4. Tinto V. Dropout from Higher Education: A Theoretical Synthesis of Recent Research. *Rev Educ Res*. 1975;45(1):89-125.

5. Cabrera AF, Nora A, Castaneda MB. College persistence: structural equations modeling test of integrated model of student retention. *J Higher Educ*. 1993;64(2):123.

6. Lau LK. Institutional Factors Affecting Student Retention. *Education*. 2003;124(1):126-136.

7. Simpson KH, Budd K. Medical student attrition: a 10-year survey in one medical school. *Med Educ*. 1996;30:172-178.

8. Hedl JJ. Attrition in an Undergraduate Program in Allied Health Education. *J Allied Health*. 1987;16(3):219-227.

9. Harvey VC, McMurray NE. Students' perceptions of nursing: their relationship to attrition. *J Nurs Educ*. 1997;36(8):383-389.

10. Gupta GC. Student Attrition: A Challenge for Allied Health. *J Am Med Assoc*. 1991;266(7):963-967.

11. Klossner J. The Role of Legitimation in the Professional Socialization of Second-Year Undergraduate Athletic Training Students. *J Athl Train*. 2008;43(4):379-385.

12. Mensch J, Crews C, Mitchell M. Competing Perspectives During Organizational Socialization on the Role of Certified Athletic Trainers in High School Settings. *J Athl Train*. 2005;40(4):333-340.

13. Pitney WA. Organizational Influences and Quality-of-Life Issues During the Professional Socialization of Certified Athletic Trainers Working in the National Collegiate Athletic Association Division I Setting. *J Athl Train*. 2006;41(2):189-195.

14. Pitney WA. The Professional Socialization of Certified Athletic Trainers in High School Settings: A Grounded Theory Investigation. *J Athl Train*. 2002;37(3):286-292.

15. Pitney WA, Ilsley P, Rintala J. The Professional Socialization of Certified Athletic Trainers in the National Collegiate Athletic Division I context. *J Athl Train*. 2002;37(1):63-70.

16. Winterstein AP. *Athletic Training Student Primer: A Foundation For Success.* New Jeresy: SLACK Incorporated; 2003.

17. Delforge GD, Behnke RS. The History and Evolution of Athletic Training Education in the United States. *J Athl Train*. 1999;34(1):53-61.

18. Weidner TG, Henning JM. Historical Perspective of Athletic Training Clincial Education. *J Athl Train*. 2002;37(4 Supplement):S222-S228.

19. Wilkerson GB, Colston MA, Bogdanowicz BT. Distinctions between Athletic Training Education Programs at the Undergraduate and Graduate Levels. *Athl Train Educ J*. 2006;1(Apr-Dec):38-40.

20. Commission on Accreditation of Athletic Training Education (CAATE). . www.caate.net. Updated September 2009. Accessed February, 2010.

21. Board of Certification. . www.bocatc.org. Updated 2010. Accessed March 1, 2010.

22. Riter TS, Kaiser DA, Hopkins T, Pennington TR, Chamberlain R, Eggett D. Presence of Burnout in Undergraduate Athletic Training Students at One Western US University. *Athl Train Educ J*. 2008;2(Apr-Jun):57-66.

23. Board of Certification. *Role Delineation Study.* Fifth Edition ed. ; 2004.

24. Henry KJ, Van Lunen BL, Udermann B, Onate JA. Curricular Satisfaction Levels of National Athletic Trainers' Association-Accredited Postprofessional Athletic Training Graduates. *J Athl Train*. 2009;44(4):391-399.

25. Hunt V. Education Continues to Evolve: Post-Professional Work Expands. *NATA News*. Jan 2006:14-19.

26. The National Athletic Trainers' Assocation. . www.nata.org. Updated 2010. Accessed Febuary, 2010.

27. Graduate Students Report Employment Status. *NATA News*. May 2006:34-35.

28. McPherson BD. Socialization into and through sport involvement. In: *In, Lueschen, G.R.F. and Sage, G.H. (ed.), Handbook of social science of sport (with an international classified bibliography), Champaign, Ill., Stipes Pub. Co., 1981, p. 246-273.* ; 1981.

29. Stroot SA, Williamson KM. Issues and themes of socialization into physical education. / Socialisation en education physique. *J Teach Phys Educ*. 1993;12(4):337-343.

30. Eli I, Shuval JT. Professional socialization in dentistry. A longitudinal analysis of attitude changes among dental students towards the dental profession. *Soc Sci Med*. 1982;16(9):951-955.

31. Sabari JS. Professional socialization: implications for occupational therapy education. *Am J Occup Ther*. 1985;39(2):96-102.

32. Price SL. Becoming a nurse: a meta-study of early professional socialization and career choice in nursing. *J Adv Nurs*. 2009;65(1):11-19.

33. Ousey K. Socialization of student nurses - the role of the mentor. *Learn Health and Soc Care*. 2009;8(3):175-184.

34. Pitkala KH, Mantyranta T. Professional socialization revised: medical students' own conceptions related to adoption of the future physician's role - a qualitative study. *Med Teach*. 2003;25(2):155-160.

35. Pitney WA, Ehlers GG. A Grounded Theory Study of the Mentoring Process Involved With Undergraduate Athletic Training Students. *J Athl Train*. 2004;39(4):344-351.

36. Harvill LM. Anticipatory socialization of medical students. *J Med Educ*. 1981;56(5):431-433.

37. Williamson KM. A qualitative study on the socialization of beginning physical education teacher educators. *Res Q Exerc Sport*. 1993;64(2):188-201.

38. Hayden J. Professional socialization and health education preparation. *J Health Educ*. 1995;26(5):271-276.

39. Mensch J, Mitchell M. Choosing a career in athletic training: exploring the perceptions of potential recruits. *J Athl Train*. 2008;43(1):70-79.

40. Capel SA. Attrition of Athletic Trainers. *Athl Train*. 1990;25(1):34-39.

41. Cummins A. Clinical supervision: the way forward? A review of the literature. *NURSE EDUC PRACT*. 2009;9(3):215-220.

42. Flynn SP, Hekelman FP. Reality shock: a case study in the socialization of new residents. *Fam Med*. 1993;25(10):633-636.

43. Zinsmeister LB, Schafer D. The exploration of the lived experience of the graduate nurse making the transition to registered nurse during the first year of practice. *J Nurses Staff Dev*. 2009;25(1):28-34.

44. Henning JM, Weidner TG. Role strain in collegiate athletic training approved clinical instructors. *J Athl Train*. 2008;43(3):275-283.

45. Scriber K, Trowbridge C. Is Direct Supervision in Clinical Education for Athletic Training Students Always Necessary to Enhance Student Learning? *Athl Train Educ J*. 2009;4(1):32-37.

46. Dyrbye LN, Thomas MR, Power DV, et al. Burnout and Serious Thoughs of Dropping Out of Medical School: A Multi-Institutional Study. *Acad Med*. 2010;85(1):94-101.

47. Stilger VG, Etzel EF, Lantz CD. Life-Stress Sources and Symptoms of Collegiate Students Athletic Trainers Over the Course of an Academic Year. *J Athl Train*. 2001;36(4):401-407.

48. Dutta AP, Pyles MA, Miederhoff PA. Stress in health professions students: myth or reality? A review of the existing literature. *J Natl Black Nurses Assoc*. 2005;16(1):63-68.

49. Hendrix AE, Acevedo EO, Hebert E. An Examination of Stress and Burnout in Certified Athletic Trainers at Division 1-A Universities. *J Athl Train*. 2000;35(2):139-144.

50. Clem KJ, Promes SB, Glickman SW, et al. Factors enhancing career satisfaction among female emergency physicians. *Ann Emerg Med*. 2008;51(6):723-728.e8.

51. Price M. Professional issues. Job satisfaction of registered nurses working in an acute hospital. *Br J Nurs*. 2002;11(4):275-280.

52. Kania ML, Meye BB, Ebersole KT. Personal and Environmental Characteristics Predicting Burnout Among Certified Athletic Trainers at National Collegiate Athletic Association Institutions. *J Athl Train*. 2009;44(1):58-66.

53. Hertel R. Burnout and the Med-Surg Nurse. *Acad Med-Surg Nurs Official Newsletter*. 2009;18(3):1;16-18.

54. Woodside JR, Miller MN, Floyd MR, McGowen KR, Pfortmiller DT. Observations on burnout in family medicine and psychiatry residents. *Acad Psychiatry*. 2008;32(1):13-19.

55. Mazerolle SM, Bruening JE, Casa DJ. Work-Family Conflict, Part 1; Antecendents of Work-Family Conflict in National Collegiate Athletic Association Division 1-A Certified Athlethic Trainers. *J Athl Train*. 2008;43(5):505-512.

56. Mazerolle SM, Bruening JE, Casa DJ. Work-Family Conflict, Part 2: Job and Life Satisfaction in National Collegiate Athletic Association Divisin 1-A Certified Athletic Trainers. *J Athl Train*. 2008;43(5):513-522.

57. Dixon MA, Sagas M. The Relationship Between Organizational Support, Work-Family Conflict, and the Job-Life Satisfaction of University Coaches. *Res Q Exerc Sport*. 2007;78(3):236-247.

58. Grzywacz JG, Frone MR, Brewer CS, Kovner CT. Quantifying work-family conflict among registered nurses. *Res Nurs Health*. 2006;29(5):414-426.

59. Pitney WA. A Qualitative Examination of Professional Role Commitment Among Athletic Trainers Working in the Secondary School Setting. *J Athl Train*. 2010;45(2):198-204.

60. Giacobbi PR. Low Burnout and High Engagement Levels in Athletic Trainers: Results of a Nationwide Random Sample. *J Athl Train*. 2009;44(4):370-377.

61. Pitney WA, Parker J. Qualitative Research Applications in Athletic Training. *J Athl Train*. 2002;37(4 suppl):S168-S173.

62. Pitney WA, Parker J. Qualitative Inquiry in Athletic Training: Principles, Possibilities, and Promises. *J Athl Train*. 2001;36(2):185-189.

63. Rusinová K, Pochard F, Kentish-Barnes N. Qualitative research: Adding drive and dimension to clinical research. *Crit Care Med*. 2009;37(1 Supplement):S140-S146.

64. Pitney WA, Parker J. *Qualitative Research in Physical Activity and the Health Professions.* Champaign, IL: Human Kinetics; 2009.

Introduction

Since the beginnings of the athletic training profession in the 1950s to the present day, a primary concern has involved the education of students and working professionals.[1,2] This is evident with the marked growth of professional (entry-level) athletic training education programs, post-professional programs, and continuing education programs.[2-4] The opportunities both professionally and educationally for the athletic training professional have increased significantly over the past few years and will continue do so in the future.[5-7] Currently, there are 347 Commission on Accreditation of Athletic Training Education (CAATE) undergraduate programs, a number which has significantly grown since the transition away from the internship route to certification.[3,5,6] The National Athletic Trainers' Association (NATA) estimates over 5,000 student members, yet only 600 members are certified graduate students and overall approximately 1200 are certified members in their first year of employment.[5] The dichotomy in these statistics raises the question as to where are these students, who are enrolled in CAATE accredited programs, going after they complete their degree programs? Although there is a plethora of data regarding student retention in higher educational programs,[8-10] there is a paucity of research on those students who complete degree programs but choose not to enter the workforce in which they were professionally trained. Presently, peer support, clinical educational experiences, and motivation are linked to retaining students in athletic training education program (ATEP)[6], whereas stress and burnout predominately lead to attrition for students enrolled in medical and nursing programs[11,12] and post professional programs.[4,13] Athletic training students (ATSs) encounter a stressful and demanding lifestyle as they attempt to balance their

academic studies, clinical responsibilities, and personal obligations and interests.[14] This stress often leads to burnout among ATSs.[15] Perhaps these same factors can influence an ATS decision to enter the workforce.

Today, the ATS, upon graduation, have a multitude of career options, which may include advanced study in a variety of graduate programs, post-professional degree in athletic training, or direct entrance into the work force via high school, collegiate athletics internships or outreach positions.[4,16] With this diversity in options available and no current mandatory course for post-professional study, it is important to understand how ATSs arrive at this post-graduation decision, particularly as the statistics demonstrate a clear decline of students entering into the workforce. A better understanding of the decision making process may help increase the number of students who pursue post professional educational programs as well as those who enter into the work place. A study by Niebert et al[16] explored the career decisions of senior ATSs and recent graduates of accredited ATEPs. This study revealed 82.4% of participants chose to pursue a career as an athletic trainer, while the remainder indicated they were not seeking employment in the athletic training profession.

Professional socialization is an important and necessary component of an athletic training student's educational experiences. As a developmental process, socialization is defined as an individual's process of learning in which they acquire the knowledge and skills which allow them to function in a particular role.[17-19] This process is a fundamental component in the professional preparation of health care professionals, including the athletic trainer as they learn the skills, values, attitudes, and norms of behavior associated with their particular profession. The socialization process has distinct phases: 1)

recruitment and exploration of the role in which the person is considering, 2) professional preparation through a formalized educational program, and 3) organizational socialization in which the person gains real-life work experience once they completed their degree programs.[18,20-23]

The professional preparation phase is commonly associated with the anticipatory socialization process whereby an individual develops an association with, and adjusts to, the group (i.e., the profession) to which he/she hopes to gain membership.[24] Although there is currently a strong understanding of how students are recruited[20] into an ATEP, what factors attract them to a career in athletic training[7], what factors keep them enrolled in ATEPs[6], and how they are socialized once in full-time positions[18,19,21,25], there is limited understanding of the professional preparation and anticipatory socialization of the ATS and its impact on attrition into the workforce.[16] Our hope is to build off previous literature focused on career decisions[6,7,16,18-20,22,26] and socialization.[18,19,21,22,26,27]

The primary goal of this research is to examine the influence professional socialization plays on the career decisions of the senior ATS. Specifically, we hope to uncover how the process of being socialized in an accredited CAATE ATEP, can influence the ATS decisions professionally. The following questions guided the data collection process: 1) what influences undergraduate ATSs decisions regarding their immediate post-graduation plans, 2) why do ATSs choose to enter the athletic training work force versus never entering at all, and finally, 3) what factors do ATSs consider when selecting a concentration for graduate academic study?

Methods

Theoretical Framework

Maxwell[28] suggested that qualitative methods are appropriate for understanding meanings; contexts in which participants received education and work, thought processes rather than outcomes, and identifying critical influences on attitudes and behaviors. Qualitative methods can ultimately lead to generating theory, as it is an ongoing, emergent process.[18,29] Previous research conducted regarding ATSs career decisions was performed using quantitative methods.[16] For a more in-depth understanding of the influences affecting the senior ATS post graduation career decisions, a qualitative approach was selected. Qualitative methods, although not a new form of scholarship, is starting to see an emergence in the use of internet based research methods particularly in the form of interviewing.[30] This type of data collection method has many advantages including the inclusion of a geographically dispersed sample of participants, communication between the researcher and participant at the convenience of the participants, ample time for reflection[31] before responding, increased anonymity, and the reduction in misinterpretation of the data[30]. Moreover, an increasing number of students and professionals are using electronic, internet-based modes of communication. For these reasons, an internet based qualitative approach was selected to learn more about the influences of senior undergraduate ATS career decisions post graduation. Follow-up one-on-one phone interviews, were also conducted after the initial on-line portion was completed and data was analyzed.

Participants

At the outset of the study, we established pre-determined criteria[29,32] for study participation, including both male and female ATSs who were in the last semester of their senior year enrolled in CAATE programs who were planning on sitting for the Board of Certification (BOC) exam. Students were not excluded based upon career choice (i.e. employment versus graduate school versus type of graduate study program) in order to gain a holistic perspective regarding post-graduate decisions.

Twenty-two ATSs (females n=16; males n=6), who graduated in May 2010 from thirteen different CAATE programs participated in this study. We realize having predominately female participants could drive some of the responses in one direction; however, currently the NATA membership statistics are revealing a shift to being more female dominated.[5] The average age was 22$\pm$ 2 and they represented seven NATA districts (see a breakdown in Table 1). Of the twenty-two initial participants, six (female n=3 and male n=3) agreed to participate in the follow up phone interviews.

The researchers initially sent emails explaining the study and steps for data collection to 75 randomly selected program directors (PD) in CAATE accredited programs to help facilitate enrollment into the study, as currently there is not a database for student members.[18,29,32] The NATA member services can separate out student members, but it does not identify their level in a program. However, the CAATE website[3] does provide information on all the ATEPs across the country. The researchers compiled a list of all ATEPs and the corresponding PD information. Once the list was completed, the researchers arbitrarily picked PDs to email. The PD was asked to forward the email to all senior students, and the students directly contacted the investigators. Also, the researchers capitalized on pre-existing professional relationships with PDs, to help

identify potential participants meeting the criteria.[29,32] After the initial emails, recruitment followed a snowball sampling,[29,32] in which the researchers recruited participants and other colleagues. Recruitment of subjects ceased once data saturation was obtained.[18,29] Data saturation occurred after analyzing our initial pool of 22 interviews. The decision to cease data collection was determined based upon an equal distribution of post graduation career decision (n=12 decisions to persist; n=10 leave the profession) as well as an establishment of data saturation. Consent was gained from all participants prior to data collection.

Table 1.Individual Participant Demographic Data

Name	*Age*	*Gender*	*State*	*NATA District*	*Institution Division*	*Career Decision*
*Scott	22	M	CT	1	I	PERSIST
*Taylor	22	F	CT	1	I	PERSIST
Bianca	22	F	CT	1	I	PERSIST
*Dylan	24	M	PA	2	II	LEAVE
Melissa	22	F	PA	2	II	LEAVE
Wendy	22	F	PA	2	II	LEAVE
Colleen	22	F	PA	2	II	PERSIST
Amanda	21	F	PA	2	II	PERSIST
Laura	22	F	PA	2	II	LEAVE
Cathy	22	F	PA	2	II	PERSIST
Eliza	21	F	PA	2	II	LEAVE
Bailey	22	F	PA	2	I	PERSIST
David	22	M	NC	3	I	PERSIST
Mackenzie	24	F	NC	3	I	PERSIST
Elena	21	F	SC	3	II	LEAVE
*Julie	22	F	MD	3	III	LEAVE
Christopher	24	M	WI	4	I	PERSIST
*Nathan	21	M	MN	4	III	LEAVE
Kim	23	F	MI	5	I	LEAVE
Jackson	23	M	GA	9	I	LEAVE
Annie	21	F	WA	10	I	PERSIST
*Nicole	23	F	OR	10	I	PERSIST

*Represents participants involved with the follow up phone interviews.

Setting and Instrumentation

Before students took part the interview questions, they completed a background questionnaire. By filling out and submitting the background questionnaire, students consented to participation in this study. This questionnaire was used to collect demographic data of the participants, as well as provide a backdrop of the participants intentions after graduation. The background questionnaire also integrated Likert scale questions to rate the participants perceptions of certain characteristics of the athletic training profession, and this information is presented in the results section. A full list of the questions included in the background questionnaire can be seen in appendix 1. The online portion of the study was conducted via HuskyCT, a learning management software program, which provides a secure platform for educators to engage in communication with their students. The structured on-line interview guideline (see Table 2) was created by the researchers to answer the research questions, by drawing from existing literature on choosing a career in athletic training, retention in athletic training programs, and socialization of athletic trainers. A second interview guide (Table 3) was created for the follow-up phone interviews, but were semi-structured in nature to allow for expansion upon review of the on-line data. A panel of experts (n=3) who consisted of qualitative researchers and professional educators reviewed the instrument for clarity, interpretability, and design. This step was included to establish content validity of the interview instrument and to establish credibility with the methodological design. Several changes were made as a result from the feedback received from the panel of experts including the removal of a few questions, rewording of others, and the addition of a few demographic variables. Prior to data collection, the Institutional Review Board approved

the study, and a small pilot study (n=3) was conducted with a small group of ATSs in the same CAATE accredited program. The data generated from the pilot study was not used in data analysis, but instead to ensure comprehensibility, flow to the on-line interview and background questionnaire, as well as establish face validity of the on-line interview. After the pilot study, minor changes were made the documents including rewording of questions and order of delivery of the interview questions.

Table 2. Structured On-line Interview Guide

1. What influenced your decision to study athletic training?
2. What are you immediate plans after graduation (graduate school, working, leaving the profession)?
3. Discuss how you arrived at your decision (graduate school, working, leaving the profession)?
4. When you were making your post-graduation plans who influenced/impacted your decisions? What people did you turn to for advice (professors, clinical instructors, family, friends, significant others, etc)?
5. Did you post graduation plans change from when you first entered your academic program? If so, please describe why. If no, please describe, why not.
6. Reflect back on your opinions and expectations of the profession of athletic training before you began your academic preparation. How has it changed now that you are getting ready to graduate and did this impact your post-graduation decision?
7. Did any of your classmates leave the program before completing the coursework? If yes, do you know what factors contributed to them leaving the program early? Are your post graduation plans different than your current classmates?
8. From what you have seen throughout your undergraduate education, why do you feel some of your classmates have chosen to not enter the profession of athletic training after graduation?
9. Do you feel your education and clinical experience have prepared you enough to practice as an athletic trainer? Has this at all influenced your post graduation decisions?

Table 3. Semi-Structured Interview Guide for Follow-up Interviews

1. What was the major influence behind your reasons to persist in athletic training? Do you see those same influences ever changing?
2. What was your major reason to leave the profession/never entering in the first place?
3. Do you have any regret regarding your decision?
4. Where do you see yourself professionally in 5 years?
5. Reflect back on your undergraduate experience, is there anything you would change? Why?
6. Why do you think so many students go through the process of undergraduate education in athletic training and when they graduate they never use the degree they received?

Data Collection Procedures

Once interest was acknowledged by the participants as described previously, a cover letter including a background questionnaire, login ID, and password for the interview was sent via email. All participants completed a series of 9 initial interview questions over the course of one week. The researchers specifically chose to have participants answer questions at the end of April 2010 because they would have an almost concrete idea of their post graduation plans. Questions were posted on Monday and Thursday mornings, and the participants had the opportunity to log in and out, to add or edit their responses to each question at their own pace. During the week of data collection, participants were sent emails notifying them of a new question posting or a reminder email to respond to that day's questions if not completed prior to a new question set posting.

Follow-up interviews (n=6) were conducted over the telephone to clarify findings, gain more in-depth information about the influential factors regarding career decisions, and substantiate the initial findings. The phone interviews were audio taped and transcribed verbatim. All participants were not included in the phone interview; only six

participants volunteered (3 persisting in athletic training and 3 leaving athletic training) as indicated previously. Participants were emailed a consent form specific to the phone interview, and they signed it and returned it via fax. Upon completion of data collection the electronic data was cut and pasted into a word document for analysis, while the follow-up interviews were transcribed verbatim. After transcriptions, we sent the completed transcriptions, via email, to the participants as a form of member checking for clarity and accuracy.

Data Analysis and Trustworthiness

The interview data was analyzed inductively, borrowing from the grounded theory approach,[32,33] as well as from the steps discussed by Pitney and Parker.[29] The transcripts were carefully read to gain a holistic sense of data collected. The key information was identified as it related to the purpose and research questions established at the onset of the study. Each key piece of information was assigned a label to capture its meaning, and the labels were thematized as emerging categories developed.[29,33] Relationships between categories were evaluated and examined and collapsed together or separated when appropriate. All final themes were reviewed within the research team and with the peer reviewer.

Trustworthiness was established by peer review, data source triangulation, and multiple analyst triangulation. An athletic trainer and athletic training educator with previous experience with on-line interviewing and qualitative methodologies served as the peer reviewer. The peer reviewer evaluated the data and findings as interpreted by the researchers to determine credibility and accuracy with the data collection process and interpretations. The data collected was triangulated by using multiple forms of data

collection, including on-line interviewing, phone interviews, and a background questionnaire. Different forms of data collection were used to allow participants to answer in a variety of ways, allowing for the fact that participants may have difficulty relaying their thoughts. We utilized two researchers to analyze transcripts and discuss emergent themes, and this can help reduce the possibility of misinterpreting the data.[29] The two researchers analyzed the data separately to maintain accuracy and not influence one another.

Results

Two higher order themes emerged from the findings that explained the participants' reasons and influences regarding their post graduation career decisions, as seen in figure 1. Figure 1 depicts the role of anticipatory socialization in the emergence of the two first order themes. Anticipatory socialization includes the experiences an individual has before entering the workforce, which can involve both formal and informal professional preparation. Undergraduate education and professional preparation play a major role in the development of students' post graduation career decisions. Each first order theme was comprised by a series of lower order themes (figures 2 and 3). The lower order themes illustrating the participant's reasons to persist in athletic training were 1) *faculty and clinical instructor support*, 2) *marketability*, and 3) *professional growth*. The lower order themes articulating the participant's decision to leave athletic training included 1) *shift of interest away from athletic training*, 2) *lack of respect for the athletic training profession*, 3) *compensation*, 4) *time commitment*, and 5) *athletic training as a stepping stone*. Each of the themes is explained below and supported with participants' quotes.

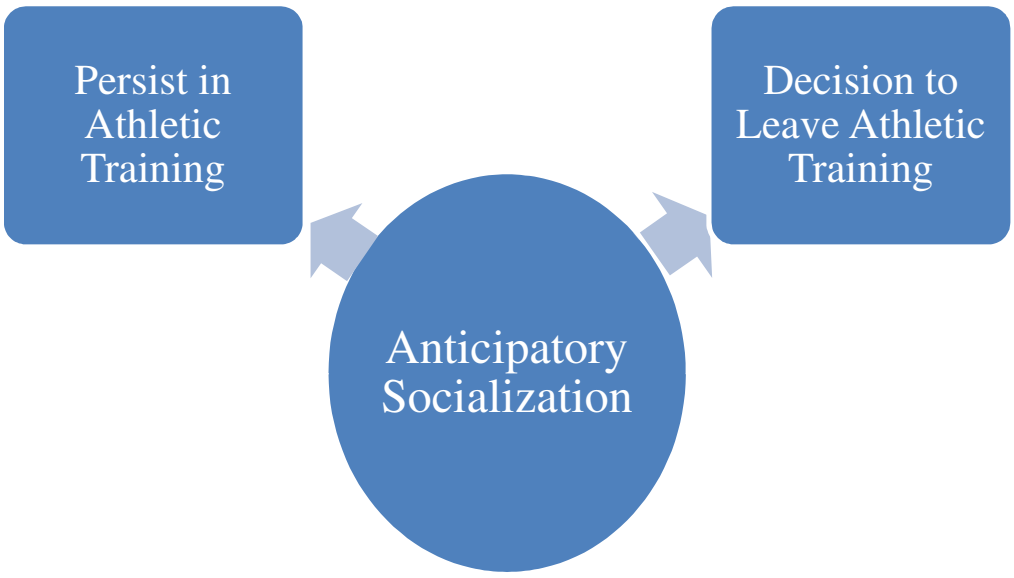

Figure 1. Influences on ATS post graduate decisions

Persist in Athletic Training

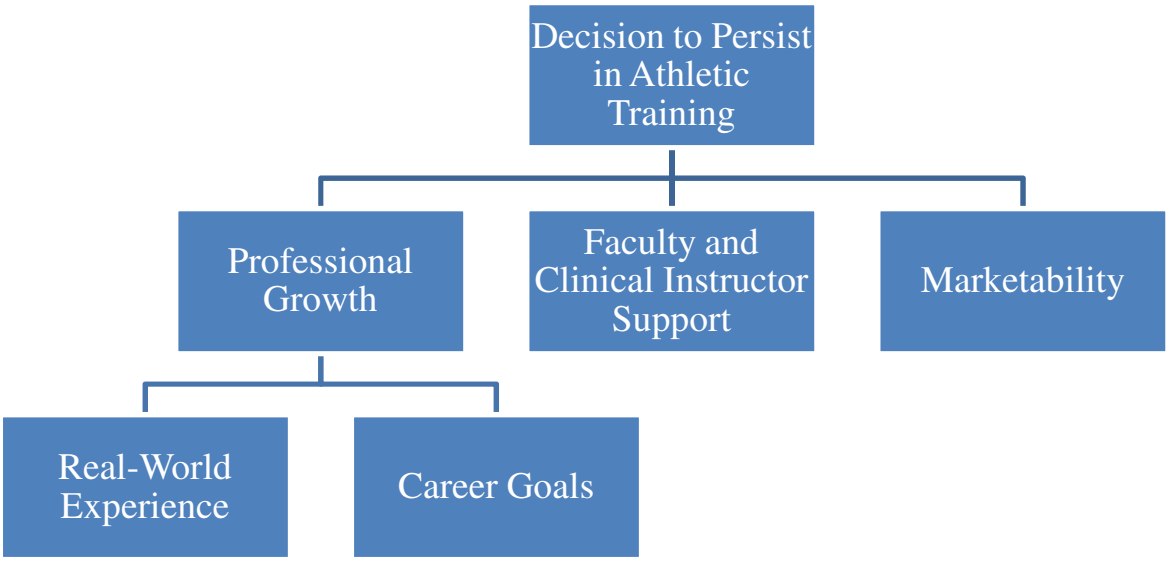

Figure 2. Factors Influencing an ATS Decision to Persist in the athletic training profession

Professional Growth

The final lower order theme, *professional growth*, was discussed by multiple participants and referenced the need to gain more real world work experience or

achieving future career goals. Although the two lower order themes are similar, they were distinct and are discussed in detail.

Real World Experience

Several of the participants viewed advanced study as a means to promote professional growth, while still being mentored and supported as a graduate assistant athletic trainer. This was a reflection of commitment to the profession as well as apprehension to accept the responsibilities of a full-time position. Taylor, during a follow-up interview, said, "it [graduate school] acts as a buffer zone before I head into the real world. Just even starting out now, I'm so glad I'm able to have support instead of just being thrown out there on my own." Bailey highlighted the commitment aspect as her rationale for graduate school. She said,

> I am always willing to keep learning new things and I wanted to broaden my knowledge in the athletic training field. I have a passion for athletic training and plan to continue with it for the rest of my life.

Amanda had a similar sentiment about professional growth and commitment, "I think that in order to be the best athletic trainer I can be, I need more education and guidance. This is why I chose to attend graduate school." For Bianca, professional growth meant gaining more experience working as a graduate assistant. She stated, "I wanted the experience I would gain working as a graduate assistant while I was at grad school." Follow-up interviews with the 3 participants who persisted in athletic training, confirmed this theme. The selection of graduate school, for them, was a means to help promote professional growth without the pressures associated of a full-time position.

Career Goals

Pursuit of future or "dream" positions was another driving force behind the post graduation decisions of this group of ATSs. Graduate assistantships provided the

opportunity to gain experience within a clinical setting they hope to obtain upon graduation. They recognized the need to gain real-life work experience in that setting in order to be a viable candidate. Mackenzie said,

> I decided to go to graduate school because I want to work for either a college or professional team in the future. I feel that in order to get to that level in my career I would need to receive my master's.

Melissa reaffirmed this theme by stating, "After learning that pretty much all you can do with an undergraduate degree in athletic training is work at either a high school or clinic, I decided to continue my education." When asked why they decided to continue with graduate school, Scott during his follow-up phone interviewed discussed the need to improve and advanced his knowledge and skills. He stated,

> Education, education, education. Going to the place where I knew I would get, hands down, the best education for a master's program that you can get. And also to get my hands on some research and try to become a better clinician…I think once you graduate undergrad, you know the minimum. I wanted to be better.

Professional growth was perpetually discussed by those ATSs who were persisting in athletic training and encapsulates the desire to gain more hands-on job training before entering the workforce. Table 4 further illustrates the professional growth theme.

Table 4. Professional Growth Theme and Supporting Data

Real World Experience	
Mackenzie:	"Graduate school would give me the opportunity to gain more experience and improve my skills as an athletic trainer."
Kim:	"There is still a lot I need to learn… …I want to know more and that is why I am continuing my education."
Scott:	"My skills are still weak and I think most of your learning comes on the job with more exposure. This was one of my reasons for pursuing post graduate education. I wanted to improve as a clinician and more education is one way I can do that."
Future Career Goals	
Cathy:	"I want to eventually work at the college level, so I knew I would be more likely to get a job if I had a master's."
Bianca:	"… it would be easier to get any type of job after going to graduate school."
Scott:	"I would like to teach athletic training at the undergraduate level one day. This has also led to me continue my education at graduate school."
Bailey:	"I know that I want to work either in a professional setting one day or in a college/university and generally those positions require a master's degree."

Faculty and Clinical Instructor Support

Participants explained there was a strong sense of support from their faculty and clinical instructors regarding their post graduation plans. They relayed that program directors, professors, and clinical instructors all played a role in guiding them toward different directions following graduation. Participants agreed that these people and mentors were a large influence in their decisions. For example, Bianca stated, " I think that my post-graduation plans were mostly influenced by my professors and clinical instructors." This was echoed by Mackenzie, who explained "My professors and ACIs at

my school had an impact on my decision as to what opportunities were available for me after graduation. They really helped me in this process."

The participants seemed to receive the biggest influence from professors and clinical instructors when deciding to attend graduate school and further their education. This was articulated by Bailey, who said

> My program director and many of the athletic trainers that I have worked under all persuaded me to go to graduate school…people that I have worked with in my undergraduate career really influenced that decision.

Taylor relayed the message by stating "My professors and clinical instructors gave me great advice to go to graduate school." Cathy also agreed by explaining "My ACIs also had an influence on my attending graduate school, all of them directed me towards getting my Master's."

For Scott, the role of faculty and clinical instructor support played a different role by helping him narrow down specific graduate schools to apply too. He stated, "My professors also were very influential in pointing me in the direction of specific schools to look at once I decided to obtain my masters in athletic training." The emergent theme of faculty and clinical instructor support reflected helping participants mainly to attend graduate school and persist in the field of athletic training.

Marketability

Marketability was articulated as a means to advance current knowledge through additional educational experiences. This was often in conjunction with a graduate assistantship and the pursuit of an advanced degree was viewed as a means to diversify their professional strengths as a means to secure a potential job. Nicole stated, "…while I know that I can get a perfectly respectable job in athletic training without a master's degree, I want to make myself as marketable as possible." For both Bailey and Julie,

becoming more marketable meant broadening their education in different areas other than athletic training. Bailey said, "…I want to broaden my area of knowledge and I felt that studying sport management was the perfect area." Julie reinforced this idea by explaining, "In order to make yourself marketable to the masses you need more than one degree…The field itself is overflowing with people that have dual degrees [or credentials]." The previous quotes speak to the participant's beliefs that employers would value an advanced education that may expand an athletic trainer's abilities.

Decision to Leave Athletic Training

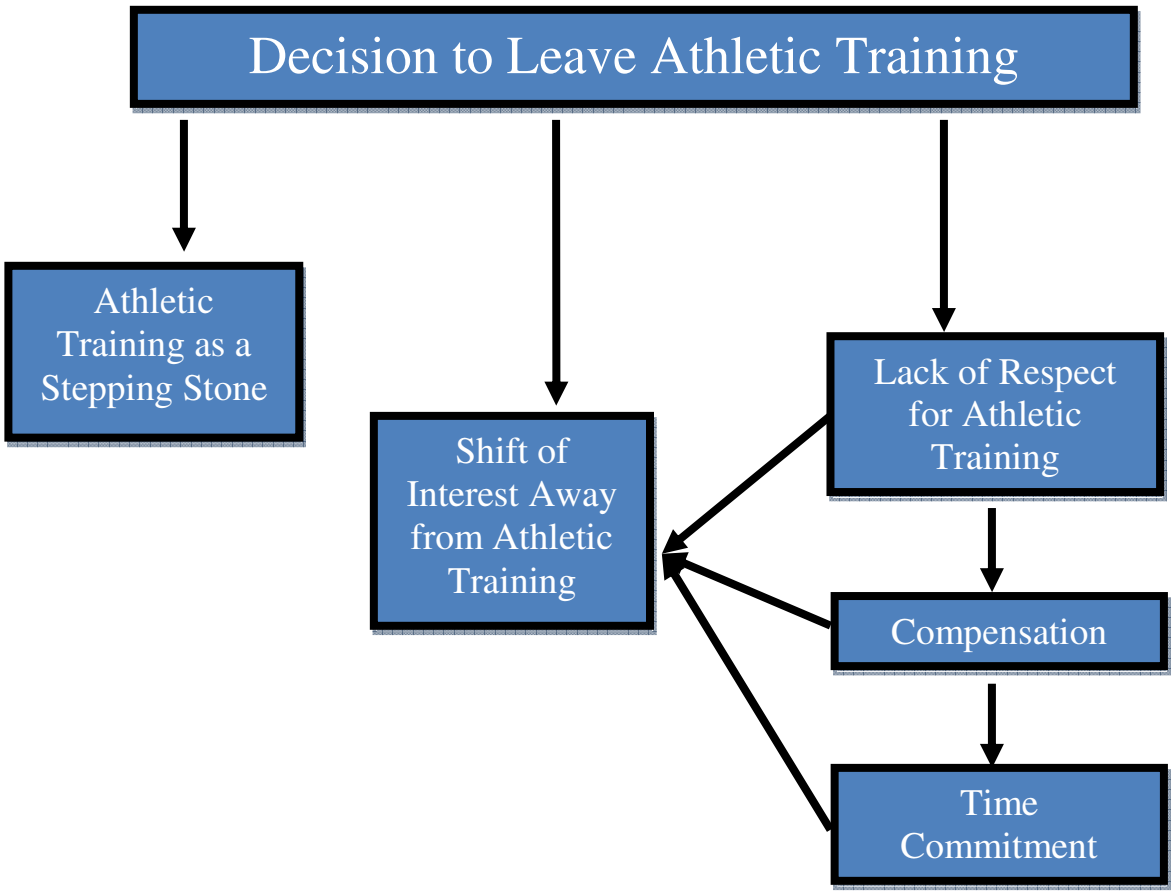

Figure 3. Factors Influencing an ATS Decision to Leave AT Profession

Figure 3 depicts the influences ATSs articulated as reasons to leave the athletic training profession. In combination, it appears as though *lack of respect for the athletic training profession, compensation, and time commitment* were fundamental reasons to leave athletic training for this group of students. Ultimately these elements of the profession, as viewed by the student caused a *shift of interest away from the athletic training profession* or in essence detracted them from wanting a career in the profession. Athletic training students who spoke of using athletic training as stepping stone to another medical or healthcare profession, did comment on the factors of *respect, compensation, and time commitment* but due to their professional goals were less troubled about them. Using athletic training as a stepping stone was often viewed a separate reason to leave athletic training and the challenges previously mentioned were recognized by the participants, but not of concern.

Shift of Interest Away from Athletic Training

A *shift of interest away from athletic training*, was a realization made by the participants through their academic and clinical exposure to the roles and responsibilities of an athletic trainer that the profession did not match their personal interests and ultimate career goals. This was the case for Wendy, who stated,

> I am leaving the profession for a different profession because through internship experiences, I realized that my ability to remain calm and think clearly during high stress (injury) times, is not great. I find it very difficult to react to certain high stress times in a clear manner, where I will need to be the person being relied on.

Other participants, although opting to remain in the profession, discussed attrition among classmates due to the realization the profession was not what the originally anticipated or understood it to be; or their undergraduate experiences did not match their expectations. David, for example, said, "I had many classmates who decided to drop out of the athletic

training program. A lot of the reasons seemed to be that students were not aware of what was involved in the athletic training program." Mackenzie recanted similar observations, stating, "…I have seen many [peer] students leave… I think a lot of students don't understand what the [athletic training] program will consist of when they first decide to apply for the program." Eliza explained,

> There have been a large number of people who have dropped out of the major [athletic training]. People have just realized that this profession was not for them. I don't think many people realize the work that goes into being an Athletic Trainer.

Annie said, "Several of my classmates left the program throughout my time in college. I do not know all of the reasons behind this but for the most part it was due to a realization that this was not the profession for them." Bailey echoed this statement saying, "I feel that some students have chosen not to enter the profession of athletic training after graduation because they thought it was something different than it was."

Follow up interviews reaffirmed this theme as one participant, Nathan, discussed the commitment necessary and the misconceptions regarding the profession. He said,

> Students are leaving the athletic training field because I think that students don't really understand the investment involved in being an athletic trainer…athletic training students realize that athletic training is not for them and it is not just about hanging around athletes.

The process of being socialized into the profession of athletic training allowed many of the participants to discover the expectations, roles and responsibilities were no longer of interest for them.

Lack of Respect for the Athletic Training Profession

Several participants revealed that the job description and responsibilities of an athletic trainer were misunderstood and in some cases the role of the athletic trainer was not respected within the general public and medical community. This *lack of respect for*

the profession of athletic training caused a few participants to leave athletic training for other more respected careers. For example, Jackson said, "I would like to practice a profession that was more respected among the entire population and medical population." Both Dylan and Bailey believed that athletic trainers received little respect from others. Dylan stated, "I did not like the amount of respect athletic trainers received from their superiors." Bailey said, "I know a lot of them [classmates] didn't like how they were looked down upon by doctors and other health professionals." For Mackenzie, her views involved the perception of athletic trainers. She said, "I find that many people do not take athletic trainers seriously."

Participants expressed the combination of *lack of respect for athletic training* and *compensation* as a reason for them to leave the profession. In a follow-up interview, Dylan was asked "What was the number one reason you decided to not pursue athletic training?" He responded, "Hands down, the lack of respect and the amount of money made." For some participants, lack of respect manifested itself in not being adequately compensated for the work performed by an athletic trainer. For others, compensation in and of itself was the primary reason for not persisting in the profession.

Compensation

Compensation refers to the salary and benefits of an athletic training position, regardless of clinical setting. Several of the participants discussed the disparity in athletic trainers salaries in comparison to other allied health and medical care providers. For Laura, compensation was the direct cause for her leaving athletic training. She candidly stated, "Salary was a big determinant to leave [athletic training]. As a PA (physician assistant) I will make SIGNIFICANTLY more than an athletic trainer." A majority of the

participants agreed athletic trainers received low pay, especially in relation to the amount of work and hours related to their abilities to meet their professional responsibilities. For example, Dylan said,

> Athletic training salaries could be a lot higher than what they are for the amount of work you put into it…I think athletic training honestly hurts itself because it opens up a lot more opportunities to other routes that pay more.

Wendy agreed by saying, "Some people want to move on to better paying jobs, with better hours, and more recognition." Two participants, although not opting to leave did discuss having classmates deciding to leave athletic training because of low compensation. Amanda explained,

> As stated my most of my classmates, it's mostly about compensation. Athletic Trainers' don't make much money…the low pay has driven a majority of my classmates away from the profession.

Nathan reinforced this comment by stating, "Some students are pursuing other health careers because of the lack of money in athletic training and the long hours required." During a follow up interview Scott reinforced this concept about his classmates when asked why so many students leave the athletic training profession. He stated,

> Sometimes I think it just comes down to money. We don't get compensated for the rigorous schooling that we go through and the amount of knowledge that we actually know.

Participants also expressed their concerns about compensation in athletic training in a Likert scale included in the background questionnaire. A full list of all the Likert scale questions, means, and standard deviations that participants answered can be seen in Table 5. On average, they rated income/salary compared to work as 3.7 on a scale from 1-10 (1 being poor and 10 being excellent). This reinforces the concept that participants perceive athletic training as a low paying job, leading way to a reason for them to leave the profession.

Participants were introduced during their educational preparation to a profession, which is not fully compensated for the professional demands and hours necessary to complete job specific responsibilities; knowledge and understanding they may not have had until enrolled into an academic program. When asked if there is anything we can do as a profession to change, during a follow up interview, Taylor responded, "I don't know. I guess just continue to change the mindset that it's not all about money. You do what you love."

Table 5.Likert Scale Data Rating Characteristics of the Athletic Training Profession

Questions	Mean ± SD
1. Number of hours worked per week	4.7±2.6
2. Job and work related stress	4.9±2.3
3. Ability to balance life (school, family, personal time, etc)	5.2±2.5
4. Chances for career progression and development	7.1±2.7
5. Income and salary compared to amount of work performed	3.7±2.0
6. Quality of education and clinical experience you received	8.6±1.4

**Note: Students evaluated the statements above on a 10-point Likert Scale.1 representing poor and 10 representing excellent.*

Time Commitment

Participants expressed the concern that the athletic training profession involved an extensively large *time commitment* usually, which was controlled by someone else other than the athletic trainer. Jackson, for example, stated, " I do not want a job that requires me to work an insane amount of time, requires me to be available to someone at all times…" Mackenzie added, "I have realized that athletic training is a lot of hard work and consists of very long hours." Some expressed the concern that they couldn't see themselves being an athletic trainer for the rest of their lives. Wendy commented, "I do not wish to spend so many hours, and over time hours working when I plan to have a

family." Like previously seen with *compensation*, *time commitment* was also included in a Likert scale. Participants were asked to rate the number of hours per week worked. On average, participants rated hours of work a 4.7 out of 10. This low number can contribute to reasons students leave the athletic training profession.

Other participants explained reasons they understood for their classmates to leave the athletic training. Amanda said, "Most of them [classmates] left because of the enormous time demands. They would have to make sacrifices with other activities to stay in the program…" Cathy reiterated, "Some of my classmates dropped out simply because of the time commitment of practices, traveling, etc." Dylan spoke, "…a lot of our classmates that switched to another major were either too lazy and did not like the time commitment…time was a major factor for most people."

Stepping Stone

Stepping stone was defined as the use of a degree in athletic training as a means to provide training and a background for another degree program, such as medical school, physician assistant, or physical therapy doctoral programs. This theme also encompasses the understanding of never wanting to utilize the skills of an athletic trainer, but rather use it as a catalyst for professional growth. For example, Christopher discussed his peers intentions regarding a degree in athletic training,

> My classmates going onto PT, PA, and medical school wanted to do that prior to athletic training. They wanted to get their undergraduate degrees in athletic training because that is what interested them and they felt that they could use their undergraduate education as a resource in their future endeavors.

Julie agreed by saying, " I always knew that I would not work as an athletic trainer. That it was a stepping stone for me…my athletic training background could help propel me through nursing school."

Two participants explained they enjoyed athletic training, but they wanted to learn more in specific areas to be able to have more opportunities. Elena, for example, said, "I chose Occupational Therapy because I find it to be much related to athletic training, while at the same time, it open up many more opportunities for me and still gives me a masters." Nathan echoed Elena's thoughts, "After my athletic training schooling, I really feel compelled to learn more and I felt like physical therapy would be the best way for me to expand my knowledge."

Follow up interviews, confirmed that the profession of athletic training was viewed as a *stepping stone* for another medical profession, particularly because the degree programs (being pursued after graduation) do not offer undergraduate course work. Julie put it best by saying,

> I think maybe a lot of people use it [athletic training] as a stepping stone. Athletic trainers are so under represented. They take for granted what we do, how hard we work, what we need to do. The sad thing about it is that you just can't go out and do athletic training. I feel like you need athletic training plus another certification or two certifications to even be competitive in the job market.

Participants who spoke of athletic training in this way all had a preconceived notion to use their undergraduate education in athletic training as a backing to pursue future goals in another health care field.

Discussion

Using the socialization theoretical framework, this study was aimed at examining how senior ATSs arrive at post-graduate decisions to help educators provide the best mentorship possible as well as help matriculate the ATS into the workforce. The results of this study indicated that, for this group of senior ATSs, the first step in the career decision-making process centered upon their choice to stay or leave the profession of athletic training. Those who decided to persist in athletic training did so as a result from faculty and clinical instructor support, improved marketability, and professional growth. Those senior ATSs who elected to leave the profession of athletic training did so because of a shift of interest away from athletic training, lack of respect for the athletic training profession, compensation, time commitment, and athletic training as a stepping stone.

Persist in Athletic Training

Professional Growth and Marketability

Once the decision was made to enter the profession of athletic training, many participants identified a need to develop their clinical skills and marketability through additional training to secure a future full-time position within athletic training. Moreover, several participants discussed the need to continue their maturation as a clinician prior to assuming a role of a full-time athletic trainer. Marketability and professional growth, as described within this study, is characterized under the universal term of professional socialization. Professional socialization, as defined by the literature, is a complex learning process designed to prepare and give insight to how individuals understand and fulfill their professional responsibilities.[17,23] Through this process, individuals obtain the knowledge, skills, norms, values, roles, and attitudes pertaining to their profession.[16-19,22]

Professional socialization can be an informal orientation where students begin to mature in professional values and identity.[7,16,19,22] Our results indicated professional growth and marketability was a means to gain real world work experience in a more formalized mentorship experience as a graduate assistant athletic trainer, while still continuing to advance their education. This finding is consistent with recent literature examining the decision to purse a post-professional athletic training program, in which the desire to have increased autonomy while receiving mentorship and learning more advanced knowledge was a priority.[34]

According to the literature, anticipatory socialization involves formal educational programs or professional preparation,[7,19,21,23,27,35] while organizational socialization occurs when individuals enter into their respected work force,[19,21] and they interpret and assume the role of a competent professional.[23,27] The results demonstrate that by deciding to pursue athletic training, students often chose a route of graduate school with an associated athletic training graduate assistantship. The graduate assistantship was pursued because students wanted to be introduced into the real-world job setting, but still have the ability to rely on other individuals and mentors for help. A study by Klossner[27] explored how ATSs develop professionally throughout their educational experiences. These results revealed that legitimation, looking to other for acceptance or reinforcement, begins the process of professional socialization for ATSs.[27] Even during the organizational socialization process, Pitney[22] described new athletic trainers contacting fellow athletic trainers to learn how to adjust with their new roles and responsibilities. Mensch et al[21] described organization socialization as individuals who must adjust the ideals and theories they have learned in their professional socialization to the demands and

imperfections of the real world. Professional socialization is a fairly complex, very individualistic, setting specific, and on-going process, with multiple dimensions impacting upon each individual attempting to find his or her place in the work world.[23] The professional growth and marketability theme in the present study displays how students deal with this complex process.

Faculty and Clinical Instructor Support

Anticipatory socialization is a tacit process for the future athletic training professional as it is essential for professional development as well as forming an understanding of the roles and responsibilities of the athletic training professional.[6,7,19,22,27] For those who made the decision to pursue athletic training beyond undergraduate studies, did so because of their educational experiences. One of the strongest influences was that of faculty and clinical instructor support, a finding consistent with the work of Neibert and colleagues.[16] Athletic training education program faculty members and clinical instructors oftentimes assume the role of a mentor,[16] which is vital for the growth of the young professional, particularly when being socialized into their professional roles.[16,26] Athletic training students desire supervisors to demonstrate mentoring behaviors.[26] Mentoring is a socialization strategy comprising fostering an interpersonal relationship and addressing the educational needs of individuals.[26] Students face a variety of professional development challenges during the anticipatory stage of socialization due to the complexity of academic, clinical, and professional environments, and they repeatedly look to mentors for assistance.[26] The role of the mentor is pivotal in preparing individuals for their future occupational roles ensuring that they possess the relevant knowledge and skills to practice.[35] The importance of the mentor roles involves

bringing together theory and practice, maintaining and developing an effective learning environment, providing professional support and guidance, enhancement of the quality of patient care, career progression, and assisting in socializing students into their occupational roles.[35,36]

Athletic training students begin to take on the established perceptions of their mentors,[16] and therefore when a mentor encourages continued professional development the student is more inclined to follow those recommendations. As highlighted by Neibert et al[16] students are strongly influenced, positively or negatively by the perceptions of their mentors and in this case many of the senior ATSs who wanted a career in athletic training did so because of a positive influence from a clinical instructor or faculty member they viewed as a mentor. A study by Klossner[27] gives in depth discussion about how ATSs develop professionally throughout their educational experiences. These results revealed that legitimation, looking to others for acceptance or reinforcement, begins the process of professional socialization for athletic training students.[27] Klossner[27] describes three factors that give way to legitimation including role of socializing agents, effect of role performance, and influence of perceived rewards. Building trusting relationships with socializing agents is rewarding and important to student and professional athletic trainer development. Furthermore, those senior ATSs who had an optimistic vision of the profession developed this mindset through their educational experiences, which was facilitated through strong mentorship; a previously identified critical socialization tool for a pre-professional student.[26] Mentorship received during the undergraduate experience is also being directly linked to the ATS's decision to attend a post-professional athletic

training program; a decision which has also been found to be related to professional growth and career intentions.[34]

Decision to Leave Athletic Training

Participants in our study who made the decision to leave athletic training did so after gaining a more realistic picture of the profession through their educational experiences, thus recognizing it was not the profession for them. Those who decided to not enter the athletic training profession did so to pursue training and work in another healthcare or wellness profession. Throughout the results participants often spoke of the perceptions of their classmates. They interpreted and expressed reasons they thought their classmates left the athletic training program, oftentimes prior to graduation. Our results demonstrate that multiple factors influence the decision to pursue other healthcare professions over athletic training.

Shift of Interest Away from Athletic Training

As participants were forced to evaluate their futures due to their impending graduation, they began to realize that the roles and responsibilities of an athletic trainer were not what they initially anticipated. This realization was recognized after their socialization into the roles and responsibilities of an athletic trainer through their structured academic coursework and clinical experiences. Ultimately the student recognized the athletic training profession was not in line with their interests or career goals. Students, who indicated a shift in interest, seem to be leaving athletic training because they are unaware of the professional roles and responsibilities before enrolling in their undergraduate educational programs. This concept is supported by Mensch and Mitchell[20] who found undergraduate students lacked a full appreciation of the profession.

Misconceptions of the skills and responsibilities involved in the athletic training profession can eventually lead students to choose other career paths.[20] Learning more about why students enter athletic training programs,[20] as well as an understanding of ATSs career decisions[16] are important to the development and progress of the athletic training profession. Anticipatory socializing experiences can assist ATSs to become integrated into the athletic training profession.[6] In accordance, literature about retention within athletic training education programs suggests that those who left were students who lacked integration and/or motivation to persist in athletic training education.[6] Motives of students discovered for choosing a career in athletic training, as well as continuing a career in athletic training sometimes are not in line with the specific duties and skills of an athletic trainer.[6,16,20] It is important to help educate students about the profession before they commit to ensure attrition. The motives for entering athletic training should be aligned with the mission of the profession, and not a contingency for other career choices.[20] The interaction of ATSs with their clinical instructors can also explain reasons for leaving athletic training. Certain clinical instructors may model behavior that is perceived by the ATS as exhibiting imbalance between their professional and personal life, and ATSs can interpret that lifestyle is the reality of the profession as a whole.[16] To help eliminate this problem, clinical instructor training could cover professional behaviors around ATSs. The reinforcement of a positive attitude in the work place can potentially help keep young ATSs more interested in the profession. In previous research, it was discovered that ATSs look to clinical instructors for mentorship and demonstration of positive behaviors towards the athletic training profession.[26] With a positive mentorship experience provided by clinical instructors, ATSs can have a better

understanding of the roles and responsibilities of an athletic trainer, as well as potentially keep them in the profession.

There is an assortment of attractors to the athletic training profession, and some include to work with athletes, to stay associated with sports, to become a health care professional, and to be a part of a team.[7] Students can often times have a distorted vision of an athletic trainer directly out of high school. They may not have had an athletic trainer at their school every day, or they only saw the athletic trainer taping or making ice bags. Students may choose to enter athletic training because they were an athlete in high school, and they wanted to stay involved in athletics without the full understanding of the role of an athletic trainer. This misunderstanding could lead to students to leave athletic training once they begin their undergraduate education. To help retain ATSs, steps need to be taken by faculty members to integrate young students into the clinical realm, not just the academic aspect, of athletic training. Prior to admission to an athletic training program, students could benefit from observation or shadowing an athletic trainer for a certain amount of hours during the semester. Also, students should be exposed to more than just one clinical setting prior to application to gain a holistic understanding of what the athletic training profession has to offer. Discussions within the classroom must also take place, for instance in an introduction to athletic training course, regarding issues that may thwart an ATS from continuing on in the profession. These candid discussions can help reduce the number of ATS who matriculate through their entire curriculum before making the decision that the profession does not meet their expectations or professional goals.

Lack of Respect for the Athletic Training Profession

Participants expressed the concern that the athletic training profession was not respected by the general public and medical community, and this lack of respect led them to opt for other careers, which were perceived to carry more professional clout. This theme, like *shift of interest away from athletic training*, can be explained by the misunderstanding of the athletic training job description, especially the roles and responsibilities of an athletic trainer This concept is reinforced by[16] a study that explored career decision of ATSs which found one of the reasons to leave athletic training was due to the deficiency of respect received by the athletic trainer as a health care provider.[16] The athletic training profession is still in its infancy, and this could explain the misconceptions and lack of respect given to the profession by other healthcare providers. Physicians, nurses, physical therapists, and other health care professionals have been practicing clinically much longer, and students perceive them to have more respect than athletic trainers.

As athletic training continues to develop, the concept of practicing evidence based medicine has began to emerge.[37] By incorporating EBM into the practice of athletic training, the profession can become more credible. Having evidence to support the practices of an athletic trainer can make athletic training more respected. Without documented evidence showing the effectiveness of clinical interventions provided by athletic trainers, the profession will struggle join the ranks of physicians and other medical professionals.[37] Education of the health care professionals, coaches, athletes, parents, government officials, as well as others is a key step in the positive evolution of the athletic training profession. Members of the NATA, as well as members of the medical community that work closely with athletic trainers, need preach and explain to

people, especially potential ATSs, the worth and value of the athletic training profession. A superior understanding can hopefully lead to more respect for athletic trainers. Enlightening students before they enter the core of their athletic training education can assist in reducing their perception of the respect athletic trainers receive, as well as retaining these students in the profession.

Compensation

As students begin to enter the workforce after years of education, one of the primary things they think of is salary and benefits. Participants expressed the concern of athletic trainers receiving low pay compared to other health care professionals, as well as in relation to the amount of work and hours involved in the athletic training profession. This is not the first time *compensation* and salary has been discussed as an issue for students involved in the athletic training profession. Previous literature has articulated students' concern about *compensation*.[6,16,20] According to the United States Department of Labor Statistics in 2008[38], the average salary for an athletic trainer was $39,640. When comparing this salary to other related health care professions, athletic training is the lowest. In 2008, the average earnings for a physician assistant was $85,710, $62,450 for a registered nurse, and $66,780 for an occupational therapist.[38] Also, physical therapists average income was $72,790, and physical therapist assistants received an average of $46,780 in 2008.[38] When students come across these numbers, they may be persuaded away from athletic training; however if educators can highlight the positive trend in the increase of the salary of the athletic trainer as well as discuss strategies to help promote job satisfaction and a balanced lifestyle the ATS may recognize the potential the profession can offer.

When individuals are unhappy with their financial compensation, it can often lead to job dissatisfaction.[39,40] Job dissatisfaction has been on the most frequently cited reasons for leaving health care professions.[39] Job satisfaction is defined as one's perception, usually positive, towards his or her professional responsibilities, and it is a key variable to retain staff, manage turnover, and prevent individuals from leaving.[39] Students may develop this perception of job dissatisfaction from their professors or clinical instructors, especially pertaining to monetary compensation and time commitments involved with the athletic training profession. It is important for individuals involved in the development of ATSs to reinforce the athletic training profession in a positive way. Educating students on the roles and responsibilities of an athletic trainer is imperative to help retain students in the profession.

Time Commitment

For ATSs who decided to leave athletic training, a significantly large *time commitment* was expressed as a major concern. In the athletic training profession, an athletic trainer's time can often be controlled by other people, most likely coaches, athletes, or administrators. Participants did not enjoy the sense of being controlled and having little autonomy. Also discussed by ATSs who decided to leave athletic training was the combination of low salary combined with an extensive *time commitment*. In separate study participants expressed number of hours per week and uncertain changing work schedule as reason to not pursue a career in athletic training.[16] Another study examining the reasons undergraduate students choose a career in athletic training found that too much time involvement was a barrier to athletic training.[20] Specifically, a large *time commitment* can be explained by the ATS not fully comprehending the amount of

time and work involved as a full time athletic trainer throughout their undergraduate education.

When examining specific reasons for leaving athletic training education programs prior to completion, Dodge and colleagues[6] discovered students felt an athletic training career could lead to role strain or burnout in the future. This strain from an intensive time commitment can lead to burnout among ATSs before they even begin a career as an athletic trainer. The thoughts and actual process of dropping out can significantly increase when students experience burnout.[11,15] Burnout is a form of distress that can be associated with school, professional, or family responsibilities, and it involves negative attitudes and feelings about work and the inability to manage work-related stress.[11,40-43] It can be very personal in nature, but often develops when individuals work too hard for too long in high-pressure situations.[41] Burnout among professionals could potentially have its beginnings in the burnout experienced as a student.[15] In health care professionals, burnout is experienced most often within the first 1-5 years of their careers, possibly because they lack adequate exposure to job stressor, idealization of the job, and self-selected attrition.[42,43] In a study by Kania et al,[42] athletic trainers were reported to experience low to average levels of burnout. Similar research found 18% of all athletic trainers experience moderate to severe burnout and 32% of all athletic trainers experience burnout some point during their career experience.[43] Burnout can be caused by a variety of stresses, especially exhaustive *time commitments*.

The time demand involved with the athletic training profession can also lead to work-family, or work-life conflict (WFC). Work-family conflict occurs when individuals experience difficulties managing the demands and responsibilities from their personal

lives due to their job.[44,45] This has significant implications in terms of attracting and retaining athletic trainers. In athletic training, WFC has been evident in the reasons provided for leaving the profession and reasons for student's not entering the profession after graduation.[44,45] In one study, some students discussed leaving athletic training because of the limited time available for their marriage and parenting.[6] During their undergraduate education, students realized exactly how much time was involved with a career in athletic training, and they felt compelled to spend time with family more than athletes.[6] A study by Mazerolle et al[44] reported 68% percent of athletic trainers experience WFC. Athletic trainers felt consumed by their jobs because of the high volume of hours worked and travel necessary to meet their professional responsibilities.[44] Burnout and WFC can be attributed to the long amount of hours worked by an athletic trainer, and they play an important role in the attrition of ATSs. It is imperative to understand and recognize a large *time commitment* can influence attrition because a better awareness can help to retain these individuals.

Stepping Stone

The current study found that athletic training education is a *stepping stone* used by students who always had intentions of pursuing a different career in the health care field. Studying athletic training helped participants gain more experience and grow professionally compared to other undergraduate majors (i.e. biology). Neibert el al[16] also discovered some students were using athletic training in preparation for other professional program. In agreement, Mensch and Mitchell[20] reported students found interest in a different career steering them away from athletic training. Using athletic training education as a *stepping stone* can be explained by students wanting a more

hands-on and in-depth experience before moving onto another health care profession, especially medical school, physician assistant, and physical therapy.

The perception of today's students regarding the athletic training profession often is a misleading one. Athletic training students realize late in their undergraduate education that the career they chose is not what they expected. It is important for educators, clinical instructors, and practicing athletic training professionals to aid in the early socialization of students. The earlier students can understand and grasp the actual roles and responsibilities of an athletic trainer, the more ATSs will continue their career in the profession.

Practical Implications

We hope this paper serves as a catalyst for the entire athletic training profession to reflect upon the influences ATSs are describing when making post graduation career decisions. As highlighted throughout, anticipatory socialization plays a vital role in the retention of ATSs. We recommend athletic training educators and clinicians, specifically in the secondary school setting, to continually preach about the duties of an athletic trainer. By having students understand the roles and responsibilities of the athletic training profession earlier in their education, more students would be inclined to stay in the profession. When approached by secondary school students, athletic trainers can discuss the six domains of athletic training and the dynamic nature of the profession. It is important to explain to young students that athletic training is not just about taping ankles and handing out water bottles. If students can begin socialization earlier in their education, they can obtain a better perception of the athletic training profession. Also, we urge athletic training faculty to implement a course into their ATEPs that concentrates on

professional development and post graduation plans. This can help and give guidance to ATSs, as well as explore the options available after the completion of undergraduate education. Some students are unaware of the plethora of options available after graduation. Incorporating a class that examines different options for an athletic trainer could allow student to get a feel of what they enjoy most. Finally, the athletic training profession is relatively young and continually developing. To benefit both the athletic training profession and the retention of ATSs, athletic trainers, educators, physicians, and others need to educate the entire medical community and general public. Through education, people will become aware of the roles and responsibilities of an athletic trainer. The hope is with this understanding, the athletic training profession can be held among the ranks of physicians, physicals therapists, and nurses.

Limitations and Future Research

This study was aimed at exploring the influences of students' decisions after graduation from their undergraduate institution. Although, recruitment of participants was conducted randomly, many of the participants were in District 1, 2, and 3. Future authors may want to seek information on post graduation decisions from a greater variety of districts. Secondly, more women volunteered to participate in this study than men. NATA membership statistics are portraying a shift in the profession to being more female dominated; females representing 60% while males only represent 40% of membership[5]. However, future investigators should attempt to target the influences of male ATS post graduation decisions as well as the female ATS. Participants expressed the results generated from this study, especially for the decisions to leave athletic training, as the perceptions they thought classmates had toward the profession of athletic training. They

habitually spoke about reasons they felt classmates leaving the athletic training program years or semesters prior to completion and graduation. Therefore, future investigators may want to explore the specific students who left athletic training programs for other academic majors prior to graduation. This qualitative study took a different approach from the traditional data collection methods of phone interviews or in-person focus group interviews. Recently, there has been an emergence of the use of online data collection for qualitative inquires,[30] and despite the advancements with technology and the ease in which today's student uses technology some of the participants may not have been as fluent writers as they are speakers. With the use on online data collection procedures, participants are also unable to obtain feedback and discussion from others, which is usually the objective with in-person focus groups. Online questions may not be phrased clearly for the participants to understand, and without input from others it could be difficult to provide descriptive answers. Lastly, this study is the first of its kind to our knowledge. Multiple studies have evaluated the process of socialization as separate entities. Studies have looked at anticipatory socialization or professional socialization. Our study is attempting to bridge the gap between the two and discover how the theory of socialization plays a role during the transition period between anticipatory and professional socialization. We gained an overall perspective regarding the post graduation decisions of ATSs however there are many different avenues for the ATS and therefore, more research related to this issue is warranted. Future researchers should look specifically on the types of graduate programs students attend, and the types of jobs students are obtaining, whether in the athletic training profession or not.

References

1. Delforge GD, Behnke RS. The History and Evolution of Athletic Training Education in the United States. *J Athl Train*. 1999;34(1):53-61.

2. Winterstein AP. *Athletic Training Student Primer: A Foundation For Success.* New Jeresy: SLACK Incorporated; 2003.

3. Commission on Accreditation of Athletic Training Education (CAATE). www.caate.net. Updated September 2009. Accessed February, 2010.

4. Hunt V. Education Continues to Evolve: Post-Professional Work Expands. *NATA News*. Jan 2006:14-19.

5. National Athletic Trainers' Association Membership Statistics. http://www.nata.org/members1/documents/membstats/2008EOY.htm. Updated 2010. Accessed October, 2009.

6. Dodge TM, Mitchell MF, Mensch JM. Student Retention in Athletic Training Education Programs. *J Athl Train*. 2009;44(2):197-207.

7. Gardiner-Shires A, Mensch J. Attractors to an Athletic Training Career in the High School Setting. *J Athl Train*. 2009;44(3):286-293.

8. Cabrera AF, Nora A, Castaneda MB. College persistence: structural equations modeling test of integrated model of student retention. *J High Educ*. 1993;64(2):123.

9. Tinto V. Dropout from Higher Education: A Theoretical Synthesis of Recent Research. *Rev Educ Res*. 1975;45(1):89-125.

10. Lau LK. Institutional Factors Affecting Student Retention. *Education*. 2003;124(1):126-136.

11. Dyrbye LN, Thomas MR, Power DV, et al. Burnout and Serious Thoughs of Dropping Out of Medical School: A Multi-Institutional Study. *Acad Med*. 2010;85(1):94-101.

12. Deary IJ, Watson R, Hogston R. A longitudinal cohort study of burnout and attrition in nursing students. *J Adv Nurs*. 2003;43(1):71-81.

13. Henry KJ, Van Lunen BL, Udermann B, Onate JA. Curricular Satisfaction Levels of National Athletic Trainers' Association-Accredited Postprofessional Athletic Training Graduates. *J Athl Train*. 2009;44(4):391-399.

14. Stilger VG, Etzel EF, Lantz CD. Life-Stress Sources and Symptoms of Collegiate Students Athletic Trainers Over the Course of an Academic Year. *J Athl Train*. 2001;36(4):401-407.

15. Riter TS, Kaiser DA, Hopkins T, Pennington TR, Chamberlain R, Eggett D. Presence of Burnout in Undergraduate Athletic Training Students at One Western US University. *Athl Train Educ J*. 2008;2(Apr-Jun):57-66.

16. Neibert P, Huot C, Sexton P. Career Decisions of Senior Athletic Training Students and Recent Graduates of Accredited Athletic Training Education Programs. *Athl Train Educ J*. 2010;5(3):101-108.

17. McPherson BD. Socialization into and through sport involvement. In: *In, Lueschen, G.R.F. and Sage, G.H. (ed.), Handbook of social science of sport (with an international classified bibliography), Champaign, Ill., Stipes Pub. Co., 1981, p. 246-273.* ; 1981.

18. Pitney WA. Organizational Influences and Quality-of-Life Issues During the Professional Socialization of Certified Athletic Trainers Working in the National Collegiate Athletic Association Division I Setting. *J Athl Train*. 2006;41(2):189-195.

19. Pitney WA, Ilsley P, Rintala J. The Professional Socialization of Certified Athletic Trainers in the National Collegiate Athletic Division I context. *J Athl Train*. 2002;37(1):63-70.

20. Mensch J, Mitchell M. Choosing a career in athletic training: exploring the perceptions of potential recruits. *J Athl Train*. 2008;43(1):70-79.

21. Mensch J, Crews C, Mitchell M. Competing Perspectives During Organizational Socialization on the Role of Certified Athletic Trainers in High School Settings. *J Athl Train*. 2005;40(4):333-340.

22. Pitney WA. The Professional Socialization of Certified Athletic Trainers in High School Settings: A Grounded Theory Investigation. *J Athl Train*. 2002;37(3):286-292.

23. Stroot SA, Williamson KM. Issues and themes of socialization into physical education. / Socialisation en education physique. *J Teach Phys Educ*. 1993;12(4):337-343.

24. Merton RK. *Social theory and social structure.* New York, NY: Free Press; 1968.

25. Stevens SW, Perrin DH, Schmitz RJ, Henning JM. Clinical exerpience's role in professional socialization as perceived by entry-level athletic trainers. *J Athl Train*. 2006;41(suppl 2):22S.

26. Pitney WA, Ehlers GG. A Grounded Theory Study of the Mentoring Process Involved With Undergraduate Athletic Training Students. *J Athl Train*. 2004;39(4):344-351.

27. Klossner J. The Role of Legitimation in the Professional Socialization of Second-Year Undergraduate Athletic Training Students. *J Athl Train*. 2008;43(4):379-385.

28. Maxwell JA. *Qualitative Research Design: An Interactive Approach.* Thousand Oaks, CA: Sage; 1996.

29. Pitney WA, Parker J. *Qualitative Research in Physical Activity and the Health Professions.* Champaign, IL: Human Kinetics; 2009.

30. Meho LI. E-Mail Interviewing in Qualitative Research: A methodological discussion. *J Amer Soc Info Sci and Tech*. 2006;57(10):1284-1295.

31. Cooke RS, Rule S. When Face to Face won't work: Internet-based focus groups. . 2001.

32. Creswell JW. *Qualitative Inquiry and Research Design: Choosing Among Five Approaches.* 2nd ed. Thousand Oaks, CA: Sage; 1998.

33. Strauss AL, Corbin JM. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques.* Newbury Park, CA: Sage; 1990.

34. Mazerolle SM, Dodge TM. Post Professional Athletic Training Education: Attractors and Career Intentions. *J Athl Train*. 2011 In Review.

35. Ousey K. Socialization of student nurses - the role of the mentor. *Learn Health and Soc Care*. 2009;8(3):175-184.

36. Cummins A. Clinical supervision: the way forward? A review of the literature. *NURSE EDUC PRACT*. 2009;9(3):215-220.

37. Hertel J. Research Training for Clinicians: The Crucial Link Between Evidence-Based Practice and Third-Party Reimbursement. *J Athl Train*. 2005;40(2):69-70.

38. United States Department of Labor: Bureau of Labor Statistics Web site. http://www.bls.gov/home.htm. Updated December 2009. Accessed January 10, 2011.

39. Price M. Professional issues. Job satisfaction of registered nurses working in an acute hospital. *Br J Nurs*. 2002;11(4):275-280.

40. Capel SA. Attrition of Athletic Trainers. *Athl Train*. 1990;25(1):34-39.

41. Hendrix AE, Acevedo EO, Hebert E. An Examination of Stress and Burnout in Certified Athletic Trainers at Division 1-A Universities. *J Athl Train*. 2000;35(2):139-144.

42. Kania ML, Meye BB, Ebersole KT. Personal and Environmental Characteristics Predicting Burnout Among Certified Athletic Trainers at National Collegiate Athletic Association Institutions. *J Athl Train*. 2009;44(1):58-66.

43. Giacobbi PR. Low Burnout and High Engagement Levels in Athletic Trainers: Results of a Nationwide Random Sample. *J Athl Train*. 2009;44(4):370-377.

44. Mazerolle SM, Bruening JE, Casa DJ. Work-Family Conflict, Part 1; Antecedents of Work-Family Conflict in National Collegiate Athletic Association Division 1-A Certified Athlethic Trainers. *J Athl Train*. 2008;43(5):505-512.

45. Mazerolle SM, Bruening JE, Casa DJ. Work-Family Conflict, Part 2: Job and Life Satisfaction in National Collegiate Athletic Association Division 1-A Certified Athletic Trainers. *J Athl Train*. 2008;43(5):513-522.

Appendix 1.
Background Questionnaire

Directions: Please complete the following demographic information. Type your answers in the space provided, and for the yes or no questions please bold your answer. Please do the same for the Likert Scale questions.

1. Gender ___M ___F
2. How old are you? _____
3. What state are you currently studying in? _____
4. What athletic division is your academic institution?
    a. Division I ____
    b. Division II ___
    c. Division III __
    d. Other ____
5. Have you always been an Athletic Training major? YES NO
    a. If no, what major were you? _____
    b. Why did you switch to Athletic Training?

    _____

    _____

    _____

    _____
6. Have you ever felt you wanted to leave the profession of athletic training or change your major? YES NO
    a. If yes, briefly explain the reasons? _____

    _____

    _____
7. Has anyone in your class left (dropped out) the athletic training program for other majors? YES NO
    a. How many students started in your athletic training class? _____
    b. How many students are in your graduating class? _____
8. Do you have a post professional graduate athletic training program at your university (accredited or non-accredited)? YES NO

a. Has this influenced your post graduation plans in anyway? YES NO
Briefly explain? _____
_____
_____

9. Do you have a maximum or minimum number of hours to complete each **semester** during your clinical rotation? YES NO
    a. Clinical Rotation 1: _____
    b. Clinical Rotation 2:_____
    c. Clinical Rotation 3:_____
    d. Clinical Rotation 4:_____
    e. Clinical Rotation 5:_____
10. How many clinical instructors have you had total? _____
    a. Do you know how many of your clinical instructors have a master's degree in athletic training? _____
11. In your current curriculum, did you have a course or allotted class time that helped you prepare for your post graduation plans? YES NO
    a. Was this helpful or influence your post-graduation plans? YES NO
    b. Explain:
    _____
    _____
    _____
12. When do you plan on sitting for the Board of Certification (BOC) Exam? Please state month and year. _____
13. What clinical setting do you see yourself practicing once you've completed all your academic schooling? _____
14. Do you plan on attending graduate school immediately after graduation? YES NO
    a. If yes, what will your master's degree be in?
    ____athletic training ____exercise science
    ____sport management ____biomechanics
    ____physical therapy ____nutrition

____other (please specify)

b. If no, please explain why?

_____

_____

_____

c. Did research or clinical experiences available at certain institutions influence your decision? Briefly explain._____

_____

_____

Please rate the following characteristics of the "athletic training profession"

1. Number of hours work per week

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

2. Job and work related stress

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

3. Ability to balance life (school ,family, personal time, etc)

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

4. Chances for career progression and development

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

5. Income and salary compared to amount of work performed

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

6. Quality of education and clinical experience you received

Poor 1 2 3 4 5 6 7 8 9 10 **Excellent**

Please feel free to add any comments below:

_____

_____

_____

Thank you for your participation in this study.

We are also looking for several volunteers to be a part of a **follow-up phone interview**.

- We hope to clarify some of the study's findings as well as follow-up regarding your final graduation plans.
- The interview will be in September 2010 and scheduled at your convenience
- Interview should last between 15-30 minutes
- Please provide your email and phone number in which you can be reached next September if you are interested.

Appendix 2

Interview Guidelines- Senior Students

1. What influenced your decision to study athletic training?
2. What are your immediate plans after graduation (graduate school, working, leaving the profession)?
3. Discuss how you arrived at your decision (graduate school, working, leaving the profession). What factors influences your post-graduation decisions?
4. When you were making your post-graduation plans who influenced/impacted your decisions? What people did you turn to for advice (professors, clinical instructors, family, friends, significant others, etc)?
5. Did your post graduation plans change from when you first entered your academic program? If so, please describe why. If no, please describe, why not.
6. Reflect back on your opinions and expectations of the profession of athletic training before you began your academic preparation. How has it changed now that you are getting ready to graduate and did this impact your post-graduation decision?
7. Did any of your classmates leave the program before completing the coursework? If yes, do you know what factors contributed to them leaving the program early? Are your post graduation plans different than your current classmates?
8. From what you have seen throughout your undergraduate education, why do you feel some of your classmates have chosen to not enter the profession of athletic training after graduation?
9. Do you feel your educational and clinical experiences have prepared you enough to practice as an athletic trainer? Has this at all influenced your post graduation decisions?

Follow-up Questions

10. What was the major influence behind your reasons to persist in AT? Do you see those same influences ever changing?
11. What was your major reason to leave the profession/never entering in the first place?
12. Do you have any regrets regarding your decision?

Appendix 3

Initial Recruitment Email to Athletic Training Students

Dear (student),

My name is Kerri Gavin, and I am a master's student in the athletic training program at the University of Connecticut. Along with my professor, Dr. Stephanie Mazerolle, I invite you to participate in a study investigating senior athletic training students career decisions and plans post graduation. We are examining what influences students career choices, whether is it attending graduate school, obtaining a job as an athletic trainer, or never entering the profession.

This qualitative inquiry is designed to give insight to program directors, athletic training education faculty, and clinical instructors about what students are making their post graduation decisions on and why. Recent studies have investigated why individuals choose a career in athletic training, the attractors to the profession, retention in athletic training programs, and the professional socialization of athletic trainers. By gathering information from senior athletic training students about their career choices after graduation, we can have a better understanding of how they arrive at this decision, which can help the profession retain these future students.

At this time, I am in the process of recruiting senior athletic training students that will be graduating in May 2010. This study has been approved by the University of Connecticut Institutional Review Board. This study is completely voluntary and involves electronic interviewing (via web-based medium) over a one-week period. You will be able to choose between two different weeks (April 19, 2010-April 24, 2010 or April 26, 2010-May 1, 2010) to answer the online questionnaire. To participate in this study, a private online account will be created specifically for you. You will be emailed when questions are posted online (Monday and Thursday mornings), and then you will proceed to log into your account and type in your answers to the questions. You will have a certain amount of time to answer each question set, and a reminder email will be sent to you when questions need to be answered by. You may also volunteer for a follow-up interview that will take place in September 2010. This interview will be conducted over the phone, will be scheduled at your convenience, and will last approximately 15-30 minutes. At any time during the interview process you may terminate your involvement with no penalty. If you are willing to participate or know anyone that may be interesting in participating, please forward their contact information (including email) to Kerri.Gavin@uconn.edu or Stephanie.Mazerolle@uconn.edu.

Sincerely,
Kerri Gavin, ATC
Student Investigator

Stephanie M Mazerolle, PhD, ATC
Director, Entry-Level Athletic Training Education
University of Connecticut
Department of Kinesiology
860-486-4536 (o)
860-486-1123 (f)

Appendix 4

Consent Form for Participation in a Research Study

Principal Investigator: Stephanie Mazerolle, PhD, ATC
Student Researcher: Kerri Gavin, ATC
Study Title: What Influences Senior Undergraduate Athletic Training Students Career Decisions Post Graduation?

Dear _____,

You are invited to participate in a research study examining the post graduation career decisions of undergraduate athletic training students. This is a qualitative study involving a one week period of online questions followed by a potential phone interview by myself Stephanie Mazerolle, PhD, ATC or Kerri Gavin, ATC.

The purpose of our study is to identify the different reasons senior athletic training students choose different paths after graduation. We hope to have a better understanding of why students attend graduate school, get a job as an athletic trainer, or leave the profession totally. By gathering information from senior athletic training students about their career choices after graduation, we have a better understanding of how they arrive at this decision, which can help the profession retain these future students. Since the reasons and influential factors can be very personal for different people, we are utilizing a qualitative approach to closely examine this topic.

This study will last approximately one week for the on-line questionnaire through the secure HuskyCT website (the information about the on-line section of this study can be found on the information sheet). Your participation could also have you involved in a follow-up phone interview that will be taken place in the beginning of September 2010. This follow-up phone interview is voluntary and is independent from the on-line portion of the study. Each phone interview, which will be schedule at your convenience, will be audio taped. The interview process should last approximately 15-30 minutes. Once the audio recordings are transcribed, the researchers will modify the transcripts and use only the pseudonym chosen in the on-line questionnaire to secure the data (your name will not appear in any official transcript or publication, it will only be referred to by your selected pseudonym). You will be sent the completed transcription, via email; to be sure the information is accurate. Once the study is completed the audio recordings and transcriptions will be destroyed. Although the transcript will not contain identifiable information, you should know that email is not a secure form of communication and no guarantees can be made regarding the interception of data sent via the Internet by any third parties. This informed consent form will be kept secure in a locked cabinet with the PI, Dr. Stephanie Mazerolle. In addition to the researchers listed, a third member of the research team, a peer debriefer, will have access to the transcripts. The peer debriefer will contribute to data analysis and ensure consistency and logic during the process, but only know you as your selected pseudonym.

The risks are minimal for this study and include the potential for the participant to be identified once the results of the study are published. To minimize this risk, all

participants who participate in the interview process will be identified by a pseudonym which they will pre-select prior to data collection. They will only be referred to by the pseudonym during transcription, data analysis, and in publication. Additionally, any potential identifiers (institution, etc.) will be disguised. You are not expected to directly benefit from participating in this study; however, the researchers expect to gain valuable information regarding the profession of athletic training. You should also know that the UConn Institutional Review Board (IRB) and the Office of Research Compliance may inspect study records as part of its auditing program, but these reviews will only focus on the researchers and not on your responses or involvement. The IRB is a group of people who review research studies to protect the rights and welfare of research participants.

Please read the following carefully as these are your rights as a participant in this study:

If I am quoted in any way in a research report, I will be referred to by the pseudonym I pre-selected. The same is true of any other individuals and institutions or organizations that I mention in the interview. If I request, the researchers will not include any specified information in a research report. I can answer any and only the questions I feel comfortable answering, and I can choose to drop out of the study at any point.

You do not have to participate in this study if you do not want to and if you agree to be in the study, but later change your mind, you may drop out at any time. There are no penalties or consequences of any kind. During the phone interview session, you do not have to respond to any question you do not want to answer. If any changed occur during the data collection process you will be notified. The general purposes, the particulars of involvement and possible hazards and inconveniences have been explained to my satisfaction. My signature also indicates that I have received a copy of this consent form.

Take as long as you would like to make a decision. We will be happy to answer any question you may have regarding our study. If I have any questions regarding the research study I can contact, Dr. Stephanie Mazerolle, Assistant Professor, University of Connecticut, at 860-486-4536 or Stephanie.mazerolle@uconn.edu or Kerri Gavin, at kerri.gavin@uconn.edu. If I have any questions about my right as a research participant I can contact: University of Connecticut Institutional Review Board (IRB) at 860-486-8802.

I have read this form and decided that I will participate in the project described above. Its general purposes, the particulars of involvement and possible risks and inconveniences have been explained to my satisfaction. I understand that I can withdraw at any time. My signature also indicates that I have received a copy of this consent form.

_____	_____	_____
Participant Signature:	Print Name:	Date:
_____	_____	_____
Signature of Person Obtaining Consent	Print Name:	Date: